

THE AMERICAN FARMER

ESTABLISHED 1819

NINTH SERIES.

BALTIMORE, MD., APRIL 1, 1882.

VOL. I.—No. 7.

PRIZE ESSAY.

On the routine of successful Trucking for the Baltimore and Northern markets, with suggestions on the cultivating, handling and shipment of leading crops of Vegetables and small Fruits, duplication of crops, and recommendations of varieties, Manures used, etc.

By R. S. COLE, Anne Arundel County, Maryland.
Awarded the prize of \$25.00 for best essay on this topic, offered by THE AMERICAN FARMER.
Committee: Thomas B. Todd, and T. Alvah Merritt, Esqs., of Baltimore County, and Albert Dodge, Esq., of Norfolk, Va.

To make "trucking" a successful branch of farming, several things are desirable, in fact, necessary. First, easy access and quick means of transportation to good markets; second, suitable soil; third, cheap and convenient means of obtaining an abundance of manure, labor, etc. Added to all these should be a thorough knowledge of all that belongs to the business.

So numerous and varied are the different crops, the soil and cultivation required for each, that such a knowledge can be obtained only after long experience in their cultivation. Regular and daily access to market, steamboat landing or railroad is highly necessary, as many of the crops pertaining to market farming are of such a perishable nature as to require gathering over every day during their season. Water transportation is no doubt the best, on account of its coolness, freedom from jolt or jar and capacity for carrying cheaply large quantities of produce. A small sailing vessel will thus do the work of a large number of expensive teams. For distant northern markets, quick transportation can usually be availed of by such as are convenient to steamboat landings or railroad stations.

Where the trucker is situated within good hauling distance of market he has advantages which others have not. He has, however, to keep up expensive teams for transporting manure and produce, but can take quick advantage of any change in the market at shorter notice than can his rivals by railroad or steamboat. Besides this, should a glut occur in the market, as is often the case, he can retail or *haeck* his produce through the city, while the surplus at the wharves or railroads is obliged to remain over. The greatest drawback in shipping produce by rail to distant or northern markets is the present high rate of freight. Little or no encouragement is offered to the private grower and shipper by this means of transportation, but a better state of affairs is to be hoped for in the not distant future.

The best soil for trucking is a good sandy loam, or clay subsoil, of which sand or loam forms a part; the first for earliness and the latter for large crops, although success is often had upon quite a variety of soils. The land should be naturally or artificially well drained, warm and slightly rolling. Cold, wet or sticky soil is unfavorable for truck-

ing. Another great essential for farm gardening is an abundance of good manure. Stable manure is held in first esteem, then that which comes from the sheep, hog and cattle yards. Manure being such an important and expensive item in trucking, it is a good plan where practicable to keep as much stock as can be fed to advantage upon the offal of the farm. Commercial fertilizers are valuable, but chiefly as an auxiliary in helping out the manure heap, as experience has demonstrated to me that where stable manure can be obtained in sufficient quantity it gives far more satisfactory results. Upon good soil good crops may often be obtained by a fertilizer alone. As a stimulant, it often takes the place of manure, but the trucker's *sheet anchor* should be the manure heap. Used in the hill or drill, it is valuable for forcing the growth and earliness of most vegetables, but should be used chiefly in connection with manure.

Peruvian guano and bone should form the basis of the commercial fertilizers used. They are much used upon such second crops as follow peas, beans, early cabbage, potatoes, etc. Those crops are generally well manured and the second crop gets the benefit of this as well as of the fertilizers applied. By its use alone, good crops of late corn, cabbage, potatoes, etc., may be grown upon strong land, or upon a strawberry or clover sod turned under the latter part of June. One great hindrance to southern truck growers is the lack of intelligent and experienced labor. Dependent mostly upon colored labor, which is constantly drifting about from one locality to the other, but little opportunity is afforded for the training of competent and skillful laborers. German or Irish labor would probably be better. Last but not least, the trucker should not be above his profession, (which extends along upon the surface of the ground), but should be qualified by experience to lend a helping hand himself upon occasion, and be competent to direct and instruct those in his employment. He must be quick to take advantage of every change of market or weather, must know the time for planting and maturing of the different crops, the nature of different kinds of manures, seed, etc., and the rotation, handling and shipment of crops.

In regard to these we will begin with such as are forwarded during the winter months in hotbeds and cold frames. It is needless here to go into details about the construction and management of such, as we take it for granted that most persons are familiar with their use. Suffice it to say that the object of such forwarding is to gain time over the same crops started in open ground; often a gain of from four to six weeks. Glass is largely used for lettuce, cabbage, tomatoes, egg-plants and sweet potatoes. Cabbage plants for early crop may also be grown in open ground by sowing the middle of September and transplanting to the field in November. The land for such should be rich and well manured; the plants should be set deeply upon the shady side of a ridge formed by throwing two furrows together with the plow; twelve inches apart is the proper

distance to plant; they can be thinned in spring by chopping out if too close; it is well to set them close, as they are sometimes liable to winter-kill; a covering of evergreen boughs in the early winter is a benefit but not a necessity. Cabbage plants forwarded under glass in winter should be hardened off in time to set in open ground the last of March, and will head but a few days later than those planted in the fall. In cultivating, the soil should be stirred every ten days at least, until the heads begin to leaf, when all cultivation should cease. The same rule in working applies to fall or winter cabbage; the soil cannot be stirred too frequently and the plow should be set shallow as the crop matures.

EGG-PLANTS AND TOMATOES are sown in hotbeds the middle of February and transplanted into cold frames the latter part of March or first of April. They should be worked by the fingers while in the beds, and occasionally pinched back to induce stockiness, and gradually hardened off while in the cold frames. They may be set out in the open ground in May, or as soon as danger from frosts is past. A large shovelful of stable manure dropped in hills five feet apart for egg-plants and four and a-half feet for tomatoes is the usual allowance. All after culti-

vation should be done by the shovel plow, gradually running shallow as with cabbage. Egg-plants are liable to be attacked by the potato bug, in which case Paris green is an effectual remedy. The fruit should be allowed to obtain a good size before cutting, but should not get too ripe. A hooked knife and buckskin gloves are necessary in gathering rapidly. Carefully packed away in boxes or barrels they may be shipped long distances. Black Pekin and Long purple are favorite sorts.

Tomatoes for shipment to distant points require to be gathered before fully ripe and packed carefully in slat boxes. For near market or canning they should be allowed to remain upon the vines until fully ripe. Acme for early and Queen for late are good varieties. Late tomatoes require the same cultivation as early; the seed may be sown in drills one inch deep about the first of May, and transplanted to the field the latter part of June. This crop may be grown upon good land by the use of guano or bone-dust alone.

PEAS are the first field crop in spring and may be planted as soon as the ground admits of being worked. Dexter for early, White marrowfat and Blackeye marrow for late are the sorts mostly grown. Succession crops may be sown until late in April, but as a rule early sown peas do best. The small early pea delights in rich loamy soil; they should be sown in drills, three and a-half feet apart. Ten cart loads of manure to the bushel is the usual allowance; this may be applied on top the peas in the drill and covered with the plow. The marrowfat, which is larger and several weeks later, does not require so rich a soil nor so large a quantity of manure. Good crops may sometimes be grown with the use of fertilizers alone. They are sown in rows four and

a-half feet apart, at the rate of one bushel of seed to the acre. Their cultivation consists first, in a cross harrowing as soon as they begin to appear; this levels the ground for after-working and destroys the numerous young weeds which appear at that season. After-cultivation consists in two or three workings with cultivator and shovel plow, laying by as soon as they begin to blossom freely. The canning of peas has become an extensive and important business. The peas grown near Baltimore have the reputation of being the finest flavored that can be obtained. They should be picked over every four or five days or they will turn grey and are then unfit for canning. Peas are an excellent crop for improving light soils, if left upon the ground during summer, but should have the weeds which spring up pulled or cut before going to seed, as thereby much damage is done the land. Or the ground may be cleared off in time for late corn, tomatoes or cabbage. These in turn, (if the ground be strong) may have kale sown among them at the last working. A good practice for light soils is to turn the vines under as soon as through picking and sow with cow peas; these by fall will cover the ground with their foliage and afford good forage for hogs and cattle during the winter.

WARM, rich soil early in March, taking care to cover deep enough to be out of danger from freezing. They may be marketed by middle of July and the ground sown in turnips, which usually do well after this crop. Early Rose and Early Ohio are best for early crops.

STRAWBERRIES may be set out during the fall and early spring months. The usual method of planting is fifteen inches apart upon shallow lists or in furrows three or four feet apart. Frequent and thorough working with the cultivator and hoe until September is necessary for this crop the first year; subsequent cultivations may be confined to working among the plants and keeping clear of weeds. A light covering of pine needles or manure in the fall, just before freezing, is highly beneficial, serving as a mulch through winter and keeping the fruit clean at picking time. Thirty-two and sixty quart crates are used in marketing. Basket boxes are preferable, being cheap, light, and well ventilated. The vines should be picked over every day when the berries are to be shipped long distances. Care in picking and handling is to be strictly enforced. The larger varieties should be caught by the stem in picking; this prevents bruising and adds greatly to their shipping qualities. Strawberries should never be packed in the crates when wet or when coming hot from the field, but should be allowed to cool in a shady place before sending away. Berries shipped and kept cool will carry a long distance. This rule will apply to most all other small fruits. Wilson's Albany, Chas. Downing, Crescent, Kentucky, Miner's Prolific and Sharpless, are all reliable and well tried sorts. They can be grown successfully upon a variety of soils.

RASPBERRIES also succeed well upon al-

most any good soil, and are becoming under proper cultivation a profitable market crop. The red sorts, such as Brandywine, Turner and Cuthbert, do best upon a moist deep loam. The Blackcaps, of which Mammoth Cluster, Doolittle and Gregg are the standards, succeed well upon any good or light soil. Their cultivation consists in planting two and a-half feet apart in rows seven feet wide and frequent and clean culture the first year, after which their cultivation may be confined to several shallow plowings and hoeings each summer to keep down superabundant weeds and suckers. Summer pruning is best; this consists in pinching off the annual young growth as soon as it attains the height of three feet; this induces stockiness and causes them to grow in bush form. The same cultivation and treatment of the foregoing will apply to the blackberry. Wilson's Early and Dorchester are best for early and Lawton for late crops.

CANTELOUPES AND WATERMELONS fill an important place in the trucker's list of fruits and vegetables. The former do best upon sod land or any good warm loamy soil. For early crop, a light sandy loam is best. A large shovelful of well rotted stable manure to the hill is the usual allowance. These should be at least five feet apart; they are best made with the hoe, but for large plantations, where labor is scarce, they may be made with the plow, and the planting be done with the hoe. They should in no case be covered more than one and a-half inches deep. If the ground is dry at the time of planting, the earth directly over the seed should be packed solid with the back of the hoe. The striped bug is their greatest enemy. Plaster or lime, to which a small quantity of coal oil or carbolic acid is added, will keep these in check if applied in time. Cut-worms are also very destructive to the young plants. Hand-picking and frequent replantings are the best remedies. Plowing the land late in the fall also destroys many of them. As soon as danger from cut-worms and the striped bug are past they may be thinned to two plants in the hill. Their cultivation consists in two deep plowings while the plants are young and two shallow workings after they begin to run. The last working should be very shallow and given about the time the vines begin to meet across the rows. The hoe ought to follow after each plowing. For shipment to distant markets, they should be cut just before ripening. An experienced person can usually guess within a very short time of this. For near market they should be allowed to ripen upon the vines before gathering, which should be done every day through the season. Many excellent varieties are grown, peculiar to each locality, but the most popular are known as the Lewis and the Nutmeg. For watermelons, pretty near the same soil, conditions and cultivation required for canteloupes will answer. The hills should be twice the distance apart, however, and the quantity of manure doubled. This crop being a heavy one to handle, is best grown by those living near navigable water courses. The striped Gypsy and Rattlesnake melons are the sorts mostly grown for the Baltimore market. We are prohibited by lack of space here to go into details in regard to the kind of soil and cultivation required for the other numerous crops grown upon the truck farm, such as beans, green corn, asparagus, cucumbers, squashes, sweet potatoes, kale, etc., but presume this cultivation is understood by the owner of every kitchen garden. By a careful system of rotation of crops, the land may be greatly improved, but it is highly important that the land should be tilled once in every five years. Manure alone, as ordinarily applied, is insufficient to keep up fertility. It is a well known fact in market gardening, that but few crops can do well upon the same land two years in succession.

My plan of rotation has been as follows: Corn land planted in peas, which, if the land be strong enough or well manured, may be followed the same year by late crops of corn, tomatoes, or cabbage, among which kale may be sown at the last working. If the latter is omitted the land may be occupied by oats or strawberries the following spring, thus admitting of being tilled. Should the land be light and it be desirable to allow the peas to occupy the land through the summer, it may be planted the following spring in canteloupes, tomatoes or corn. In regard to the cultivation of crops upon a truck farm, it is the best plan to keep the cultivator going among them constantly from the time they will admit of being worked until laid by. The scarcity and high price of labor renders it necessary to cultivate by horse power wherever possible; and the improvement constantly going on in the construction of farming implements renders the use of the hoe less a necessity each year, and it is to be hoped that some time in the near future its aid will thereby be made almost unnecessary.

Letter from Garrett County, Md.

Messrs. Editors American Farmer:

A very general impression seems to prevail that Garrett county is simply a land of snow and storms in winter and two or three months cold weather as a sort of apology for summer. We, "who are natives and to the manor born," look at the matter from a somewhat different standpoint, and feel that were our resources more fairly appreciated—more particularly our agricultural as well as horticultural resources—Garrett would come to rank higher than it does. Our winters are severe, generally. We have abundance of snow; but how much better snow than mud. In winter, with good sledding, we are hauling manure, limestone, logs, stones, timber for building, hauling coal for our fires, and many other things which can be done to much better advantage with the sled. To be brief—What is the state of agriculture here? Fully up, we think, to a very fair standard. Our farmers are to a great extent Germans and Pennsylvania Germans or their descendants. We can about all go back and find the German stock. We have Amish Tunkers with their thrifty habits, good farms, large barns and fine stock. A bank barn is a necessity to every farm of any pretension; a sort of badge of a respectable farmer.

Now about stock raising in Garrett. We have Shorthorns, Jerseys, Holsteins; we have Lincolnhires, Southdowns and Cotswolds; we have pedigree Berkshires, Cheshires and Poland Chinas; we have Percherons and Hambletonians of imported stock, and high class poultry of the best strains. We raise wheat, rye, oats, buckwheat and corn—large yields to the acre. Potatoes are a staple and profitable crop.

Our farmers are taking more farm journals, and it is the evidence of all our postmasters that our people are reading more every year, the young generation being more inclined in that direction. We hope the time will soon come when THE AMERICAN FARMER will be a recognized necessity in every household. It is valuable from beginning to end.

I shall endeavor to give you some particulars soon as regards the horticultural possibilities of our county. I can assure you that they are of no mean order.

E. H. GLOTFELTY, M. D.

THE New Sheep Dip, Little's Chemical Fluid, advertised by Mr. T. W. Lawford, is useful for so many purposes that it should be kept on every farm.

THE New Remington Clipper Plow, and the guarantee of its makers, deserves attention from all our readers.

Agricultural Matters Abroad.

From our Correspondent in France.

THE ANNUAL FAT CATTLE SHOW of this city was on the whole satisfactory, though I have seen superior exhibitions. There has been no sensible increase in the entries, save for sheep, and the number of choice animals in any class was very limited. This exhibition is organized by the Government, and indicates something like a sad lack of practical judgment. It is the aim of all good farming to fatten stock within the shortest possible time—in a word, to encourage precocity. The judges have simply ignored this end, in the case of the oxen at all events, to which I shall presently allude. Marked progress was evident in the case of butter and cheese; the French have felt that the Danes were cutting them out in the butter markets of the world, hence the new effort. The display of cheese was very remarkable, it is a branch of industry becoming every day more developed. The show of machines testify that native implement makers have so been taught by the foreigner that Jack is now as good as his master. French makers are actually bringing out novelties. A great many orders were taken both for implements and fertilizers, which would indicate good times with cultivators.

JUDGING FAT CATTLE.—The judges have been unanimously condemned for awarding the prize of honor to an ox whose race it would be difficult to establish. Hitherto, blue ribbons were awarded for symmetry and precocity; on the present occasion deformity and long efforts to arrive at the fattening point have been honored. The animal selected for the supreme reward did not possess a single point of excellence. Its fat seems to have been laid on in lumps, and suggested the appearance of an ox on the point of bursting after large rations of green food and water. The beast weighed 47 cwt. 73 lbs., and was aged 54 months; while there were fifty animals of most correct form, representing nearly the same weight, but 22 months younger. Thus, one young ox, aged 32 months, and weighing 17 cwt. 66 lbs., and beautifully formed, produces almost the same quantity of flesh as the *laureat* in 54 months. In 960 days the former animal put up flesh at the rate of 30 ounces a day, while the second required 1661 days to put up 19 ounces daily. Ordinarily, oxen under three years of age, and having four-fifths of Durham blood, fat at the rate of 28 ounces daily. It costs one-fourth more to produce one pound of meat in France than in England.

SUGAR MAKERS AND BEET GROWERS.—The sugar makers' congress will be held at the end of May, when among other matters will be discussed the comparative value of beet pulp, by the two processes for extracting the juice and refining the latter. In the meantime the sugar beet growers have met and exchanged views as to the best means for cultivating the root, etc. In point of practical utility the congress was very remarkable.

What are the most favorable conditions for the culture of sugar beet? Deep tillage, in order to have roots uniform and not forked; abundant manurings, but manures easily absorbed and not rich in nitrogen, for excess of nitrogen produces roots poor in sugar and difficult to be worked up; sow as early as possible, when frosts are no longer to be feared, and the soil has been dried after the winter; select good seed; no supplemental manures during the growth of the plant, as such develop the bulb at the expense of the sugar; above all, no stripping off leaves during summer and autumn. Eleven roots to the square yard are considered fair spacing, and it is better to have the rows rather distant and the plants rather close. Good seed is essential, and to obtain such the bulbs for bearing ought to be selected under normal conditions of growth, and analyzed to test

their richness and purity of juice, for it is possible by special conditions of culture to produce a bulb exceptionally rich in saccharine matter, without the root being able to transmit that quality hereditarily; further, such culture might produce an unbranching root, yet the next generation would display all the forkiness.

Beet extracts a great deal of potash from the soil, so the necessity of restoring that salt is urged upon the attention of growers. A deficiency of potash in the soil induces a premature falling of leaves, holes in the neck of the root, and a resumption of growth in September, which revival takes place at the expense of the sugar cells. Phosphates are excellent, and more so if wheat be intended to follow the beet. Some recommend applications of magnesia. Respecting the period of sowing: in cold regions early sowing is to be recommended, while in warmer districts the plant is held to resist the heat in proportion to its youthfulness. It was ever a knotty point what ought to determine the monetary value of beet, for till lately it was the only agricultural product where quality was ignored. To test the industrial value of the root was not less an essential factor in price than determining the weight. Two methods were proposed, estimating the density of the juice, which is now generally employed, and analyzing its richness—a process abandoned as being laborious and unreliable, although the densimetric standard has also its drawbacks.

The question of pulp did not raise serious discussion, as practical stock fatteners corroborated the scientists: when the pulp is too aqueous correct the defect by dry rations in increased proportions. The sugar interest of France has two grievances, the inland duties and foreign importations. It is proposed to double the tax on the bounty sugars of Russia, Austria and Germany, and reduce the tax on the consumptive home product still further. As to levying the other inland impost on the beet root, as in Germany, instead of at present on the *brut* sugar in the factory, it was agreed to leave that subject as it is.

F. C.

Paris, February 25, 1893.

Making Farm Operations Successful.

Garrison Forest Grange at its March meeting, after the usual routine of business was disposed, discussed the question, "How can we make farm operations most successful?" most of the members taking part in the discussion.

Thomas Craddock opened the debate and said by attending faithfully to all details, keeping out of debt, boarding his men, and selling prime articles, was his plan for making farming pay.

C. Lyon Rogers contended that farming should be conducted exactly as a merchant would conduct his business; keeping most of the farm in grass, feeding his clover and rough feed in connection with mill-feed and corn chop, and selling only wheat, timothy hay, milk and butter.

Arthur Chenoweth said more attention should be given to the small things of the farm, as he found those paid the best; mentioned the case of an old and very successful farmer who only plowed up what he could work thoroughly and fertilize with the manure made on the place, and this, in connection with sod, kept his farm in good order. He always had something to sell and very little to buy for the farm; said that farmers were in too great haste to make money right off; they used fertilizers which acted for the present, but wore out the soil in the end. His reliance was clover, lime and manure.

Joshua Parsons advocated thorough tillage and manuring, and growing a variety of crops, especially garden crops so as to have something to sell the year round.

F. Sanderson favored the "factory system" of farming, having good, reliable men, giving steady employment the year through, growing garden and farm crops, making all the manure possible on the farm; using lime and clover; collecting and paying promptly.

Charles T. Cockey agreed with the above remarks, but said that farming was profitable besides its money value, as he that made a pleasant home, surrounded it with attractions, flowers, fruits and other enjoyments, did as much if not more than he that looked out for the dollar alone.

Cotton Cultivation.

A planter of Georgia, gives the following plan of cultivating cotton by the level system, as superior to the old plan:

When we keep our lands level, which can only be done by giving proper distance in widths of rows, we have a uniform soil, the sun and atmosphere penetrating and affecting all alike—a uniform moisture, which is just as attractive to a feeder in one place as another, each root having its own way, coursing at its will. A good width of rows brings out a larger number of feeding roots, because the attraction is just as great in the centre of the rows as at any other locality, with the same opportunities at to a supply of moisture, and under such circumstances cotton will stand a drouth of twenty days, with less injury than by the old plan, one of ten days, and I am saying little enough for the wide rows and level cultivation when I affirm that such is my experience. Cotton cultivated, if possible, on a perfect level does not require more than half the rain that is necessary to make an ordinary crop ditched and ridged up with rows hardly wide enough to walk between.

Our wide system of rows and level cultivation fills our soils with roots, which, when decayed, forms a loam—"that is, a natural soil mixed with decomposed vegetable matter," and increases the productiveness of our lands annually; also we have a larger and more portly stalk and foliage, which naturally yields larger and better developed fruit—leaves our lands in much better condition not only as to its qualities, but less liable to be washed off and better fitted for any crop that is to follow. Owing to the level cultivation, securing the advantages named, we get a larger proportion of vegetable matter, which adds to the productiveness of our soils, both internally and externally, and the larger the external growth the larger the yield, and the larger the yield the greater the benefit to the soil.

Live Stock.

Two Points in Horse Management.

If there be an animal that commands our kind care it is that noble quadruped, the horse. But kindness that kills is worse than neglect.

I want to refer to two inhuman and cruel customs that would be more honored in the breach than in the observance.

1. The so-called disease *Lampas*, the bug-bear of the groom, never exists. The arrangement of the palate is just as it should be, as it enables the animal to gather the grass more readily. The horse's molar teeth may require attention, but not the incisors or their surroundings, whose functions are prehension, and not mastication. If then the horse is off his feed, in most cases the use of a slight alternative medicine, with soft and easily digested food will effect a cure. Don't inflict that barbarous, terrible punishment of burning out the gums, and thus disable the poor brute from afterward performing those natural functions which sustain life.

2. Another mistaken kindness is horse shoeing. It is not only injurious, but is a great tax—a two-fold reason why it should



THE PROPERTY OF MR. FREDERICK VON KAPFF, BALTIMORE CO., MD.

Princess Gentian has the reputation of being the handsomest and best marked cow ever sired by old Rex 1330, a reputation particularly valuable, as he is so noted for the great beauty of his get, both male and female. Notwithstanding its foreshortened appearance some idea of her beauty and fine practical points may be conveyed by the engraving. Princess is very long and deep in the body, large deep paunch with large full ribs, altogether, what would be called a loose, rangy cow. Her udder is well shaped and large, milk veins excellent, and escutcheon of the finest Flanders type. Of course, much is lost in the inability to give the coloring of her soft, rich skin and brilliant orange colored horns. Of her breeding, it is only necessary to mention that she is sired by Rex 1330, the most famous Jersey bull living; a bull that combines of Albert blood 25 per cent., of Rob Roy 25 per cent., whilst his three crosses of Splendid aggregate 15½ per cent. Her dam is Dido of Middlefield, prominent in the well-known herd of Mr. J. E. Phillips, and a celebrated cow. She is a half sister of Rex and is out of Belle of Middlefield. Dido has a record of 18 lbs. of butter in 7 days. As will be seen, Princess is surrounded on all sides by butter makers, and it is thought that she will do no discredit to the reputation of her family.

be discontinued. Much time and ingenuity have been expended in the effort to make a shoe free from objections; but all produce, more or less, physical injury, and do not prevent the horse from slipping. When a shoe does prevent slipping it is from high, sharp heels. But such shoes strain his foot, cut his ankles, cork his hoofs, make him stiff and sore, and cause him to wound his mate. All the best authorities declare that nine-tenths of the diseases of horses proceed from their feet as a consequence of shoeing.

A physician in Virginia, Dr. Perkins, of Hanover county, says that for a number of years he has not shod his horses, believing it to be the shoe and not the road that injured the foot. He rode and drove in his daily practice a horse for eight years without shoes, and during the whole period the hoofs were sound and good, and less liable to slip on the ice than a shod horse. A slight rasping to keep the feet in shape was all the care bestowed upon them.

This gentleman gives the example of a bold riding fox hunter who would leap fences and ditches and gallop on ice to show the superiorities of a bare-foot animal to one shod, which feats his companions riding shod horses dared not imitate.

Will not all that read this brief article practice upon these two points, and talk about them to their neighbors?

Washington, D. C. G. F. NEEDHAM.

Starting a Herd of Breeding Cattle.

In selecting a bull, get a thick robust animal, with plenty of style; and if of the beef breeds, see that he has flesh in the most valuable parts—namely, along the back. In selecting a cow, see that she has already produced one or more calves; that she is with calf, or has one at her side; that she is large, well formed, of good constitution, and above all, a good milker. Good milkers are usually good breeders. As the thoroughbreds in the

herd increase in number, either sell or castrate the bulls, and retain the females. If the bulls cannot be sold for as much as \$100 each, castrate them. It may look like a great shame to do so in some instances; but it will be better for the herd and its owner to do so rather than let his best calves leave the farm at an inferior price, making it almost impossible to get more than that for any he may have to sell in the future. Besides, I contend that the farmer or breeder will, in the end, make more money to castrate his calves and sell them at good prices when fed for market, than to keep them with extra care and feed, and then sell them at only a nominal price for bulls, and he cannot sell bulls for even a fair price unless they are in good fix. If they are turned to steers, they can be put together in a pasture or feed lot, and, when fed and sent to market, are as good an advertisement as any breeder would want, and find a ready sale at a fair price at any age.

I have known of some good herds being established by their owners beginning with small stock—such as improved sheep or pigs—and gradually making friends and customers, besides acquiring information of all kinds that would be of service in the larger and more extensive business. This plan is a good one where the capital is quite limited. Much about exhibiting at fairs, showing the stock at home to best advantage for selling, placing the surplus stock on the market, and many other details, can be thus learned in a small way, that will be of future service in the larger and more extensive business of cattle breeding. There is one thing, above all others, that a breeder must possess, whether he is raising cattle, horses, sheep or pigs, and that is integrity.

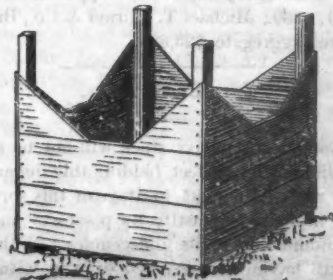
Let it be known, that an animal is represented in every way as it actually exists.—The animal should prove better than represented, rather than worse; and in no event, if it has physical defects, or a faulty pedigree, should that fact be withheld. This will be of great importance to a young breeder in es-

tablishing himself especially with his customers who might depend on his counsel and advice. Integrity is everything. In fact, the business is a myth and a sham without it.—*Cor. Nat. Live-Stock Journal.*

FEEDING YOUNG BULLS.—Opinions differ somewhat in regard to what is best to feed. Our best feeders are in the habit of using bran, as the cheapest and best means for rendering the meal fed more digestible, and there is no better divisor for corn meal than wheat bran; but the feeder must use discretion as to the proper quantity to be used. One-quarter of the bulk of feed in bran to three-quarters of cornmeal may be taken as a good, general rule, to be varied according to circumstances. Some feed in the proportion of one bushel of bran or shorts to one bushel of meal. Practically bran and shorts mixed are worth for feeding about the same as good, bright, meadow hay. Given with hay, they are worth about three-quarters that of whole grain. For a young, growing animal no exact quantity can be set down for daily consumption for any length of time.

Feed Box.

Though old, this one cannot be too highly recommended. The peculiarity is that several animals can quietly eat from it at the same time; therefore, to have all quiet in the



barnyard, provide racks for the accommodation of all stock at the same time, thus placing the weaker on an equal footing with the stronger in the respect to the allowance of food to each. Place the rack under shelter for winter weather, but make similar arrangements to feed them in open air at other times. The heaviness of the racks prevents their being carried to and fro.

Sale of the Walters Percherons.

This sale drew a large attendance, and we were pleased to meet many subscribers of *THE AMERICAN FARMER* from this and other States. Amongst those present were some well-known breeders of draft horses. The stallions, as will be seen from the list given below, all, with one exception, went outside of Maryland—which is much to be regretted. The sale was very satisfactorily conducted and closes out the Messrs. Walters' operations in this line. The public owes them thanks for their enterprise and public spirit in introducing and thoroughly proving the value of this race of horses, their efforts in this direction having largely contributed to the present popularity of the Percherons in America. The following is a list of the horses with prices paid, names of purchasers, etc.:

Imported Stallions.—Fandango, dappled gray, with white spots 6 years, 16½ hands, \$1,700; O. F. Bresee, Rapidan, Va. Victor, dappled gray, 7 years, 17½ hands, \$1,775; S. W. Ficklin, Charlottesville, Va. Monarch, dark dappled steel gray, 17 hands, 6 years, \$1,475; Jesse M. Stetson, Neponset, Ill. Torreador, light dappled gray, 6 years, 16½ hands, \$1,250; Jesse M. Stetson, Neponset, Ill. Sultan, dappled gray, 6 years 16½ hands, \$1,300; J. S. Delano, Denver, Col. Rapid, light dappled gray, 16½ hands, 6 years, \$1,700; Thomas J. Murphy, Buffalo, N. Y. Zulu, black, 6 years, 16½ hands, \$1,250;

Frank Brown, Carroll county, Md. Duke, light dappled gray, 6 years, 16½ hands, \$1,500; J. R. Smith, Purcellville, Va.

Imported Mares.—Beckie, steel gray, 7 years, 16½ hands, \$490; Jesse M. Stetson, Ill. Maggie, light dappled gray, 5 years, 16½ hands, \$1,000; O. F. Bresee, Rapidan, Va. Zoe, dappled gray, 6 years, 16½ hands, \$625; Jesse M. Stetson, Ill. Prude, light dappled gray, 8 years, 16½ hands, \$670; Thos. J. Murphy, Buffalo, N. Y. Leda, veined dappled gray, 6 years, 16½ hands, \$650; Jesse M. Stetson, Neponset, Ill. Topsy, dappled gray, 7 years, 17 hands, \$675; do. Juno, dappled gray, 7 years, 16½ hands, \$750; do. Lottie, light gray, 8 years, 16½ hands, \$320; S. W. Picklin, Albemarle, Va. Fannie, gray black, 5 years, 16½ hands, \$1,500; O. F. Bresee, Rapidan, Va. Mollie, dappled gray, 6 years 16½ hands, \$900; J. S. Delano, Denver, Col. Lucy, light dappled gray, 8 years, 16½ hands, \$670; Michael T. Horner & Co., Baltimore. Nellie, dark gray, 7 years, 16½ hands, \$800; J. S. Delano, Denver, Col. Judy, very dark dappled gray, 5 years, 16½ hands, \$600; J. L. Pittman, Shenandoah county, Va.

Home-Bred Colts.—Bessie, dark dappled gray, 3 years, \$750; Thos. J. Murphy, Buffalo, N. Y. Flora, dark dappled gray, 2 years, \$385; Jesse M. Stetson, Neponset, Ill. Rex, gray stallion colt, dropped in April, 1881, \$260; Richard R. Haines, New York city. Sue, gray mare colt, dropped in March, 1881, \$330; Michael T. Horner & Co., Baltimore; aggregate, \$23,325.

Live Stock Notes.

Good blood in live stock will not be able to answer for neglect, bidding this defiance any more than a rich heritage of this sort in the human will justify its possessor in an abandonment to its indecencies. Nothing worth having is preserved or won without effort, and when we have life there is progress or its reverse. Illustrations in point as to these things are common. Men throw themselves away as they do their fine cattle and horses and farms. Men have accomplished wonders in the way in which they have shown capacity to transform and improve their dumb friends; but every step forward from the known to the new represents the closest attention, just as all the movements the other way are included among the transactions belonging to the down hill grade.

The education of the horse should be commenced in early childhood. The treatment should be firm but gentle, very much as the training of children. As it is almost impossible to make a horse unlearn anything it learns, very great pains should here be taken to guard against error. For this reason the care, in this respect, of young horse stock should not be entrusted to boys. The colt that, in a contest for the mastery with a boy, gains the day, is never likely to forget this success, and is liable at any time in the future to try and repeat. A horse that has been handled in the right manner from its youth up, is specially valuable. More attention should be given by buyers to the history of horses in this regard.

I wish to extend the right hand of fellowship to every breeder of improved cattle, be they Polled Angus or Aberdeens, Herefords or Jerseys. Let each stand on his merits without decrying the merits of others. Every time you sell a Polled Angus or a Hereford to take the place of a scrub, you have raised the ideas of some man's standard of excellence and have brought him that much nearer to the Shorthorn. Thus says E. W. Smith, a good Shorthorn breeder of Bates, Ill., in the *Breeders' Gazette*, and it breathes the right kind of spirit.

We often hear it said—says E. W. Allen in the *Breeders' Gazette*—the general farmer

cannot afford to keep cattle of a high grade. If he cannot afford to raise good cattle, he certainly cannot afford to raise poor ones.

The greatest profit comes from the animal that will mature quickest, and take on the greatest amount of best flesh for food consumed. This being so, no farmer can afford to keep a big-horned, narrow-chested, flat-ribbed, hollow-backed, narrow-hipped droop-tailed animal. Such an animal is only good for soup and dried beef, and poor soup at that.

The Dairy.

Heifers from the Best Milkers.

We think all the best dairymen are agreed in regard to the profit of raising their own cows to supply additions to their herds. Very few have ever selected a valuable herd wholly by purchase. It has been said that if total depravity can ever be alleged against a farmer, it will be found in his representations on the sale of cows. We have often enumerated important points in favor of home-raised cows, and one of the most important is the opportunity of selecting the heifer calves from the best milkers, both for quantity and quality. If the dairyman gives no heed to this point, he will perpetuate his worthless cows with his good ones, and thus never improve his dairy herd. A large majority of dairymen have cows in their herds that do not pay their keeping; and, as they do not apply a test to the individual cows, they continue not only to keep them, but to breed from them. This is the almost suicidal policy. Although we strongly recommend dairymen to raise their own cows, we are far from advising them to perpetuate their poor cows. It would be even better policy to give them away to a favorite brother-in-law. The heifer calves from only the best cows should be raised, and the weeding out should go on still further. When these heifers come to milk, those that do not come up to the proper standard should be discharged. A careful test should always be made of each cow in the herd, and of each heifer during her first period of milking. If the heifer has the appearance of a well-formed milker and of having had a good dam, it may not be judicious to pass upon her during first milking season, if her quality is below the standard, for the next season may develop her satisfactorily.—*National Live-Stock Journal*.

Churns and Churning.

The misery of a butter-maker is the endless variety of churns, beginning with the old-fashioned, up-and-down one, which recalls my boyhood when I waited for my fresh cup of butter-milk, and often waited three hours; for in those days, the whole milk was churned. Now I can get my butter-milk in eight minutes, or less, by the old kitchen clock, which never varies from year's end to year's end.—But it is not from an up-and-down churn, which although it makes good butter, is a man and woman killer; it is now from a "rectangular" churn, and it is right angled without any doubt, for the butter not only comes quickly, but in such an excellent shape, being beaten about by these proper angles, as to greatly facilitate the washing and preparing of the butter.

To particularize, let me recall the churning of the 7th day of January, 1880; because this was an eventful one, and settled in my mind some questions which were previously doubtful to me. My cross-bred three year old Jersey and Ayrshire cow, Maida, had been fresh two weeks, and this was the churning of six days' milk. The cream—12 quarts exactly was turned into the rectangular churn aforesaid, and the churn and the cream were both at a temperature of 65 degrees. After churning for eight minutes precisely, making 70 revolutions of the churn per minute, I was

surprised to hear the "stap-dash" of the butter-milk, and was more surprised on opening the churn to see so magnificent a sample of butter. The mass of golden butter was in small grains from the size of sage grains up to that of buckshot, lying in an irregular mass piled up in the churn with a small quantity of buttermilk at the bottom. The butter weighed 10½ pounds. The result, 10½ pounds of butter from 12 quarts of thick cream, churned in 8 minutes, at a temperature of 65 degrees, settled some points about which questions are frequently asked.

H. W. STEWART.

Poultry Yard.

A Poultry Community.

The strong plea of necessity, not made by a so-called tyrant, at whose call thousands rush to slaughter, but the blessed necessity to provide for our own peaceful homes arouses the activities of head and hand to devise and carry out schemes of labor and profit.

When, also, the love of beauty and the inherent fondness for animal life can be cultivated without derogation to the laws of order, and without subjecting the sensitive pocket nerve to unnecessary and, to many, unbearable demands, by combining utility, thrift and economy, why neglect that which has been the source for supplying many country households with the ready requisite for settling the small bills that occur in the time known to farmers as "between hay and grass?"

The awakened interest that appears to be taken in all that pertains to rural pursuits, and the questions often asked you, Messrs. Editors, as to the means of acquiring sustenance from the idle farms and seemingly impoverished acres of this and other States, calls strongly for the presentation of any suggestions which may result, perhaps, in good to individuals or the masses.

The extra care now given to blooded stock of all kinds, whether quadruped or biped, is based as much on the paying power of the amount at risk as on personal preferences involved; and it should be clearly announced and understood that as good results will follow the enterprise of intelligently caring for feathered stock as comes from any other business.

The statistics of amount of eggs and dressed fowls consumed have been given or approximated from time to time in agricultural journals, but are not now at hand, yet the total is enormous, and raises the subject at once to a par with any other industry.

The numerous articles from better pens than mine as to the care to be bestowed on the rearing of the young broods, and the well-being and protection of the grown fowls, should have given your readers all the essential points needed in that respect; though new beginners still call for line upon line and precept upon precept.

Let us consider the natural wants and instincts of our workers, and provide accordingly; do not put them off into a corner not good enough for cultivation, as so often advised, but set apart the best lying and sheltered plot of ground most convenient for proper supervision; divide this into one acre lots for each fifty fowls, bearing in mind in arranging the fencing that a square takes less material to enclose the same superficial area than any other shape, except circular; in the centre of each lot place a suitable house, either permanent or portable, (many excellent plans having been given in your journal), to accommodate the number given above, say ten feet square; now sub-divide by portable fences each lot into four equal parts, leaving one of them in sod, one sow in oats, one having been or to be sown in wheat, and one in potatoes, corn, or the aesthetic sunflower.

In this city of Gallinacea the poultry family constitute the citizens, each ward presided over by a conservator of the peace, more for appearance sake than use, if merely eggs are wanted, but essential where we wish to rear the young for sale, etc.

Through the winter each sub-division may be used in turn for the sake of variety, or the whole range permitted, as little harm will be done the grain or grass. After sowing the oats the fowls can run on the grass and corn land—excluded from the latter until a safe height is reached; they can range in oats or wheat until near harvest, by which time the corn will afford the desired shade from the glowing heat of the sun.

The various operations of plowing and cultivating furnishing them with the fresh ground and insect food eagerly sought and appropriated, their services in ridding the wheat and oats from many a pest that only their keen sight could detect would show in a bountiful harvest.

In each yard should be planted some good trees for shade and profit, either cherry or plum, or any desired fruit tree; a grape vine, also, on the south side of the house; all of them promoting the comfort of the residents and the table, etc., of the owner.

The manure from the houses mixed with plaster could be at once spread on the ground to be cultivated next in order, keeping it in thrifty condition for the present, and rendering it fertile for the future demands.

As the division fences may be portable, a great deal of the labor of working and harvesting can be done by machinery on a large scale, and will pay as well at least as ordinary farming, and maintain the flocks of poultry at a minimum of cost—no more care being required than in ordinary yards, and certainly the annoyance of scratching up the other crops will be avoided, as each lot will have their own gardens to work in, and the benefit will be mutual.

After cutting the grain it will be best to turn in the fowls for only a portion of time, sufficient to prevent them stuffing to repletion, as that might lead to disaster.

It is to be hoped that these suggestions may be reduced to practice by some of your readers, it being the writer's intention to do so as soon as arrangements can be made to that effect; the plan having been given much study, and years of observation of the characteristics of fowls giving the knowledge of their likes and dislikes, teaching that their comfort must be consulted if their golden eggs would be gathered. T. W. HOOPER.

Baltimore Co., Md.

INDIGESTION IN FOWLS.—This disease may arise from bad food, over-feeding, undigested food stopping in the crop, damp, unhealthy, and badly ventilated quarters, but most generally from feeding too much stimulating food. The crop is sometimes swollen, hard and cakey, or puffy and watery, the liver much enlarged, and the intestines seriously affected. The daily allowance should be cut down, and the fowl fed on light and easily digested soft food, one teaspoonful of sweet oil every morning, and gradually working the crop with the hand until the contents become soft. In the afternoon give a little milk and some cut green grass. In bad cases give about five grains of rhubarb, or alternate with one grain of calomel for a dose. Give liquids sparingly and only such as contain the tincture of iron and red pepper.

HENS LEAVING THEIR NESTS.—The moment at which an egg is fatally chilled is not certain. If the hen is off her nest for twenty minutes in cold February weather the egg will be chilled, but not to death. Endeavor to get the hen on in ten minutes on a frosty day, or cover the eggs with a layer of cotton-wool, flannel, or even hay. Some hens will not be hurried, and to

try it will only bring trouble. A shorter period of chilling will destroy vitality in eggs during the first stages of incubation than a longer period when the chicks are nearer perfection. The first thing to do, if the eggs are chilled, is not at once to force the hen on to her nest, but to immerse the egg in warm water at 105° or even 107°. Meantime get the hen back on some false eggs; and when the chilled ones are thoroughly warmed through, replace them under the mother. Valuable eggs should not be despaired of even if the hen has been off for some hours, but should be treated as above, and next day, if examined with the aid of an egg tester, their vitality, if it is not destroyed, will be clearly seen.

Horticulture.

The Orchard and Fruit Garden—April.

As planting is now finished up for the present spring with the larger portion of our readers, it may not be amiss to invite attention to the importance of shortening in and thinning out of the branches of newly set trees. In the hurry to get through with the planting while soil and weather were in right condition, in some cases this operation is delayed, with the view of giving the trees this very necessary attention afterwards—which is all right and proper, provided the rapidly accumulating spring work is not suffered to delay the operation too long. All newly planted deciduous trees are benefited more or less by thinning out the weaker and heading in the stronger and more vigorous branches at time of planting, or soon thereafter. One-year-old trees, such as peach, apricot, plum, etc., are better by having not only every side limb smoothly and closely cut away, but the main stem or trunk of such trees should be headed down one-third at least; such treatment will cause the trees to push out a number of strong shoots all along the stem, which should be attended to before they get too large, and all rubbed off, except as many as are most suitably located to form the head of the tree with. Treated in this way a good, strong growth is usually obtained the first season after planting, which is very important, as it relates to health, etc. The washing of the bark of young trees with soap-lees or whitewash is beneficial in many ways. In a peach orchard of one thousand trees, where the trees have annually had their trunks well whitewashed, there is not a tree that shows any injury from the effects of the extreme cold of the winter of '80 and '81; while every orchard that we know in the neighborhood not thus treated contains many trees with blackened and injured bark—split in many cases and separated from the wood, leaving one side entirely dead; there is no other cause for the safety or escape of our trees from this injury, except the protection afforded by the coating of the lime, which, as we apply it, adheres from year to year.

Have any of our readers ever tried gas or coal tar, smeared on the collars of peach trees, to prevent the depredations of the grub? If so, we would be obliged by information as to results. A few years back we made a trial of it on the theory that the disagreeable odor of such tar would drive off the moth, and no eggs would be deposited in the bark. On some trees the collar was painted entirely around, on others only half way around, on others three or four narrow stripes of paint running perpendicularly at intervals on collars. Those trees painted entirely around all died the same year, the others are still living, but an examination at the end of the season it was applied revealed the fact that eggs had been deposited by the moth on the bark where the tar had not been smeared. We have had no further experiments with coal tar.

The Kieffer hybrid pear is being sold largely at very high rates, on blight-proof reputa-

tion. If its behavior with others is no better in this relation than with us, that reputation will 'die a bornin'. We purchased a few one-year trees from a prominent New Jersey nurseryman a year ago—healthy, fine looking trees, too—they were headed down at planting, and the wood thus cut off used for grafts, and set in trees of the Lawrence variety, growing in the nursery; result, a fine growth of two to four feet of a couple of dozen grafts, and all completely and thoroughly blighted but three—the blight beginning at or a little above the union of graft and stock, extending upwards from one to two feet, rendering the bark black and dead. The Le Conte treated the same way has as yet shown no signs of blight. We have never had one-year pear grafts to blight before this trial of the Kieffer. As "one swallow does not make spring," so it may be argued by the friends of this pear, that blighting of one-year grafts is an isolated case; but whether or not this is exceptional it greatly weakens our faith in its immunity from that pear tree plague.

Efforts on the improvement in fruits in every relation are of course commendable, and the energetic, hard-working gentlemen, who by dint of persistent trial succeed in placing before the public a really valuable new variety of any kind of fruit or vegetable deserve not only remuneration for the time and labor thus expended, but the thanks of the public as well; yet at the same time it is in no degree less proper that the claims thus made regarding the merits of new kinds of fruits, etc., be honestly proved and established before it is sold in such reputation. The experienced orchardist or fruit grower is not so likely to be taken in by such traps as the beginner, and the above remarks are intended to excite the caution of such, and save them disappointment and vexation.

Remedy for the Yellows.

At the meeting of the Western New York Horticultural Society Dr. E. L. Sturtevant spoke briefly on the diseases of vegetable substances, and said that a free use of muriate of potash had been found an efficient remedy for the yellows in the peach; others had tried it with success. Potash was the needed substance, and the muriate was used because it was a cheap commercial compound. It must be applied in excess of the demands as plant food, the precise amount not yet determined, probably not over three or four pounds to the tree. Mr. Harrison, of Ohio, said that fresh wood ashes had been used successfully for the yellows. E. A. Bronson, of Geneva, mentioned instances where fresh lime heavily applied had prevented yellows and restored diseased trees. Two or three bushels were applied for each tree, and the lime was spread broadcast over the whole ground. Every tree thus treated was strong and healthy. President Barry thought that feebleness of growth was sometimes mistaken for yellows, and that more credit might have been given to remedies than they deserved. Dr. Hexamer mentioned cases of success in treatment of yellows where the soil was drawn away and hot soap applied, the soap containing the potash required. Dr. Sturtevant explained the nature of the action of the potash. In the yellows the vessels become overgorged with starch, and the circulation retarded or stopped; the potash dissolved it and set it free. This remedy had been worked out by scientific reasoning, and was not the result of random experiment. Trees which have been pronounced by distinguished authority as affected with the yellows had been cured by this remedy, but continued experiment is needed. J. S. Woodward said that the injury by the peach grub had been sometimes mistaken for yellows, and he pointed out the distinction. He was willing to take all the grubs if others would take the yellows from his trees. He had tried ashes, lime, bone-

dust, and other remedies, but they did not stop or cure yellows—possibly because a sufficient quantity had not been used.

CHANGING THE BEARING YEAR.—Mr. Lyman Hyde, Williamsburg, Mass., raised 400 barrels of Roxbury Russets and 300 barrels of other winter apples during the past off year, a success due to extra care of the orchard and the peculiar process of snipping the blow-blossoms on the trees when apples are going to be plenty. When he began this work some years ago his neighbors verily thought that the man had gone crazy on apples, and laughed at the idea. To do the work properly requires much time and patience, as it will not amount to much to pull off the blossoms in bunches, for one is liable to take leaves and all, so that the next year the trees will bear the same as usual, but each blow blossom must be picked off singly and nipped just at the point where the stem should be. It takes a man several days to clean a tree of its blossoms in this way, and when other people have tons of apples rotting under the trees, and good winter fruit will not bring enough for carting, Mr. Hyde has but a small crop, but the off year he goes to market with loaded wagons and returns with full pockets.

THINNING AND PACKING FRUIT.—Marshall P. Wilder says: The importance of properly thinning out fruit trees when bearing redundant crops is more and more apparent. To produce fruit that commands a good price in market has become an absolute necessity. This is seen especially in that intended for exportation, apples of good size, fair, and properly packed, commanding in the English market fully double the price of those which had not received such care.

Pleasure Grounds and Greenhouse.—April, 1882.

By W. D. BRACKENRIDGE, Florist and Nurseryman, Govanstown, Baltimore Co., Md.

PLEASURE GROUNDS.

The influences by which spring operations in horticulture are controlled, are numerous; being regulated in a great degree by the condition of the weather, which, during the past winter has been exceedingly mild, but disagreeably wet, thereby hindering improvements, and the preparation of land for planting; and as the season for such work is now upon us, we would suggest that active efforts be made in preparing now for performing work of this kind contemplated.

First of all, if deciduous trees and shrubs are to be moved, the ground should be deeply plowed or trenched, but when this kind of preparation is not practicable, the holes for the trees should be dug large enough to receive all the roots when spread out, so that afterwards ten to twelve inches of loose earth can be filled in between the end of the roots and edge of the hole, into which rootlets may freely penetrate. There are two ways of planting practiced by jobbing gardeners and other lazy people, which we deprecate; in both cases they dig holes not bigger than an ordinary punch bowl, into which after the roots are doubled up, the tree is stuck, not planted. The other way in which this work is performed, is to cut the roots back, just enough so as to fit into the small holes they have dug, and when the earth is filled in, no one can know the condition of the tree below ground, save the man who butchered them; but murder will out, and the owner of the trees will find out about the end of the first summer, that he is the possessor of dead or very sick trees.

In planting we recommend large holes and shallow planting, cutting back all mutilated roots, and spreading the others well out, then filling in and firming the earth well all around them, after this cover the surface about two feet wide all around the tree with

a two or three inch mulch of fresh stable manure, tan or short-grass; this affords shade and assists in the retention of a constant humidity, while it also favors the development of new roots. Unless the ground is very dry, we seldom give water when planting; but with trees that can be easily handled, we find it decidedly better to dip the roots in a puddle composed of clay and short manure; with this precaution we have often transplanted trees eight to ten feet high when in full leaf, without having over ten per cent. of failure.

In pruning the top, we usually cut about as much off as the roots have suffered mutilation in taking up the tree. Cloudy weather is favorable to all kinds of planting. We would advise that all shade trees be removed before the sap is too much up; but there are a few exceptions to this rule as in the case of Magnolias and Tulip trees; these are removed with most success about the time when the leaves just begin to make their appearance. We never succeeded in transplanting them in the fall; many deaths will usually follow such a practice.

Fancies or tastes in the decorations of lawn and flower gardens fluctuate very much. In olden times a nicely kept grass sod, studded with trees and groups of shrubbery, was all that was aimed at, while perhaps near the dwelling there might be found formal groups of hardy Roses, Dahlias and scarlet Geraniums, with a band all round of Mignonette or Sweet Alyssum. Sometimes beds were filled with summer annual plants, as Rocket Larkspur, China Aster, Convolvulus Minor, Purple Candtufts, with Zinnias as a back ground. Of late years all or most of these things have been thrown in the shade, or have had to take a back seat, while at the same time the planting of permanent things, as ornamented trees and shrubs, has in a great measure been neglected, while in their places has been ushered on to the flower parterre numerous exquisitely beautiful, and gay colored foliage and flowering plants, which are mostly all of a succulent and free growing character; consequently are not difficult to multiply, requiring heat and moisture, and a very small amount of skill to bring them forward; therefore hundreds of thousands are brought into our markets annually; the leading sorts consisting of various kinds of Coleus, Centaureas, Achyranthos, Geraniums, Vincas, Petunias, Alternantheras, Echeverias, while Glaucium corniculatum holds a strong place as an edging plant for a large bed; it appears to endure any amount of frost, there being plants of it on our grounds two years old.

The above articles when in the hands of a person of taste, can be so arranged as to prove very effective; florists have given different terms or names for the different styles now adopted in planting, as Ribbon, Carpet, Mosaic and Diamond; frequently beds are filled up with mixed plants, but in this case skill is necessary in knowing the height each plant will attain during the summer.

A few small beds of flowers tastefully arranged, set off a cottage to great advantage, provided these and the surroundings are neatly kept, thus tending to make home cheerful and attractive.

Where there is no distinct piece of ground set apart as a flower garden, and the lawn is extensive, then the beds of the more dwarf growing kinds should be kept near the dwelling, while clumps of such picturesque and strong growing kinds as Cannas, Castor Oil plants, with groups of such grasses as Erianthus Ravenni, Eulalia japonica, and Pampas Grass, whose bold outlines are shown to best advantage on the back ground or at a distance.

From a person of ample means the foregoing kind of gardening receives its most reliable support for to go into it extensively means a corresponding large outlay, yet it is very

evident when one looks about to discover that there are few individuals at this day, from the lowest to the highest, but what indulge more or less in the innocent and pleasant pastime of cultivating some favorite flower or another.

Now, in order to have the beds ready by planting out time, which is usually in this latitude about the middle of May, the beds should receive a good coating of well decomposed manure, then with a fork or spade incorporate it thoroughly with the soil, but it were better that this work had been performed in the fall. There are two low-growing, free-flowering evergreen plants of great merit, which we would like to bring into public notice. The first is *Mahonia aquifolia*, an evergreen berberry inhabiting pine forests in Oregon, bearing bunches of yellow flowers, and well furnished with holly-like leaves. The other plant we allude to is the *Yucca Filamentosa* or Adam's Needle, though not a shrub, retains its sharp shaped leaves for many years, and sends up flower stems four to six feet high during the summer, bearing numerous white campanulate flowers; it should be planted in clumps in open situations.

In England the system has been inaugurated of planting in a scattered way, hardy shrubs and herbaceous plants of various kinds, in places or spots on the outskirts of woods, or in covering unsightly objects seen from walks and drives, which has received the name of the "Wild Garden," but we do not expect that any of our people will, in this respect, imitate our cousins across the water to any great extent, but this we do think, that it would add greatly to the interest of country places having woodlands, gardens and lawns near the dwelling, partaking of sloping banks and out of the way corners, where the grass is not cut more than three or four times during the summer, to plant on such places during the fall months, bulbs of the various kinds of *Crocus*, *Snowdrops* and *Grape Hyacinths*, with some of the neat kinds of *Narcissus*, all of which when once established will send up their vernal flowers every season during a man's lifetime. Bulbs of all we have named can be bought very cheap—say from 1 to 2 cents a piece.

In addition to these harbingers of spring, we would raise from seed two to three thousand *Primroses* of both the *Ox* and *Cowslip* kinds; these we would plant out on sloping banks and rocky places, where their flowers would perfume the atmosphere. One ounce of seed would be enough to begin with, and from this the sower would be delighted by securing plants producing flowers of various shades of color. I would like to see some of our country folks trying their hand on these *Primroses*.

All leaves and sticks on the lawn should be raked up and stored away in some out of the way place, where they can decay into mould for future use. Rake roads and walks, and if necessary regravell the same, then finish by passing the roller over both these as well as the lawn.

GREENHOUSE.

As the weather becomes mild it is of great importance to give the house a liberal supply of air, but the admission of cold currents of it should be guarded against. Bedding out plants that have been multiplied during the winter, should be kept near to the glass, and when the weather gets warm enough remove them to cold frames, so that they may get hardened off before being turned out into the open ground.

Keep shifting young *Fuchsias* into larger pots until you get them into a six or eight inch size, in which they may remain to bloom, observing to pinch back all irregular branchlets as they show themselves. Keep in a temperature varying from 55 to 70 degrees, using the syringe freely to keep down the red spider.

Geraniums and *Cinerarias* ought never be permitted to get pot bound, but keep shifting them until they are placed in the pots in which they are to bloom.

Dry roots of *Caladiums*, *Gesnerias*, with various kinds of *Lilies* and *Begonias*, may now be potted into fresh soil, but be careful and not overdose them with water until they have started fairly into growth, then increase both the amount of water and temperature. Any *Camellias* that require shifting had better be attended to now before they start into growth; and observe to give *Azaleas* a liberal supply of water when in bloom, while the season of the latter may be prolonged by giving a little shade and by keeping them in a lower temperature.

Plants of *Allamanda* ought now to be cut back, repotted and placed in warm quarters, while large plants of *Begonia venusta*, done blooming, should have the branches thinned out and the remainder shortened back.

Now is a good time to pot *Ferns*. Some of the kinds may easily be multiplied by division of the root stocks. The pots ought to be well drained, and a good kind of compost for them is a mixture of turfy loam-woods earth and sand.

Window Gardening.

Messrs. Editors *American Farmer*:

I come to you for a little information in regard to window gardening, which I hope you will furnish through your valuable journal, for I am sure it will be of interest to other readers of *THE AMERICAN FARMER* as well as to myself.

First—Give me the names of a few hardy flowering plants that do not require much sunshine, as my windows are so situated that I cannot place them in the sun.

Second—I have a fine lot of *geranium* plants which I would like to have in bloom. I have kept them over from my last year's stock. Can you tell me the best plan to pursue in regard to them?

Messrs. Editors you will oblige me very much by giving me all the information that you possibly can in regard to window gardening as I take a great delight in flowers, and I am so situated that I cannot have them in any other place but my windows. By giving your attention to the above, and letting me know in your next issue, you will oblige me very much. F. E. G.

Baltimore, March 4, 1882.

REPLY.—In reply to the inquiries of F. E. G., first as to flowering plants for windows, on which the sun does not shine, we suggest for trial *Begonias rubra* and *B. fuchoides*, and any other varieties she may fancy; also *Amaryllis* *Valloia* and *Calla Lilly*. Also the plain and variegated *Vincas* do very nicely in such position. I would just observe that a good growing plant of variegated *Vinca*, in an eight inch plat, which need not be more than four inches deep, is a very pretty object for a shady window. This will be thought by the window gardening fraternity a very meagre list. It must, however, be remembered that we have no means of knowing anything whatever about the conditions under which they are to grow, except that the windows have very little sunshine; therefore, we give for a commencement plants of a nice habit, generally free from insect pests, not very exacting in their treatment, and not too fastidious as to position.

Now about those "geranium plants," we cannot feel their pulse, look at their tongues, and seem wise, and what is worse we cannot see if they are in too large pots or improper soil, whether they have a few tufts of leaves at the end of the branches, or whether their foliage is healthy and ample, and in a clean thrifty condition. If the latter they will flower as the genial spring weather comes along. However, for the benefit of F. E. G., and of all whom it may concern, we say it is

far more satisfactory to strike cuttings in the latter part of summer for spring and summer flowering, and in the spring to flower the following winter. Treated thus plants bloom much more freely than old plants, and have beside a more robust and healthy appearance.

Any information upon any subject interesting to the readers of the *FARMER* will always be cheerfully imparted through its columns, and if F. E. G. needs further instruction let her write again. We may add that very few plants bearing pleasing flowers will thrive without direct sunlight. Light and heat are not the only factors in vegetable development in the rays of our great luminary, a fact which we are too apt to forget, often to the injury of the animal as well as to the vegetable kingdom.

In addition to what we stated in our recent contribution we would add for window gardening the *Ficus Elastica* and *F. Parcellii* as having ample handsome foliage and easily taken care of. A pretty object in some positions in rooms is a somewhat small vase with an agave in the centre and a good mass of money wort (*Lysimachia nummularia*), growing around the base of the plant and hanging over the rim of the vase. Is it not more satisfactory to grow a class of plants that are more easily grown and more generally healthy under the conditions to which plants in dwellings are usually subjected, than the run of plants which are often attempted? We are perfectly aware that many have a predilection for the English Ivy as a window plant. A rare old plant is the ivy green undoubtedly, but it is of too slow growth, except for the most patient. Has any one ever tried *Smilax*, our native green brier, for the purpose of training as a screen, etc., in window gardening? Of course this is too common, nevertheless, like many other things upon which we are accustomed to look with disdain because of too great familiarity. If it were an exotic and cost something its beauties would be discovered, even though we had to use a microscope to accomplish it.

HOW I MAKE MY HANGING BASKETS.—I take coarse, heavy wire for foundation and handle; then interlace with old hoop wire made pliable by burning or heating to a red heat; then I take young portulacca plants with a lump of earth attached to each, and put them through the interstices, and so fill the baskets. The plants take kindly to their unnatural position, and soon become a mass of beautiful green and brilliant flowers. My baskets hold nearly a half peck of earth, and look like a hanging garden. In each I place an empty potash box, inserted in a cavity in the earth, which I fill with water daily, and in them place fresh flowers as my fancy dictates. They hang in my piazza, which is festooned and twined with the American ivy and morning glories, and no lovelier spot can well be imagined.

Kitchen Garden—April.

It may well be that in these notes I have too often alluded to the subject of the care and management of manure, unless, indeed, I am excusable on the plea that a good thing cannot be too often reiterated. The practice of using unfermented manure is so general, and, as I think, so erroneous, that I am confident the article by "R. S. C.," page 55, is worth the year's subscription to all who will reflect and profit by its teachings. In this connection I recall a little incident of school days. In a class in agricultural chemistry farmers' sons were singled out and asked which was the most valuable, horse or cow manure? All were positive that the latter was unmistakably the best. Here was practical experience setting science at naught; and yet I think the discrepancy is easily explained. Cow manure, whatever its value, gave uniform results; Horse droppings, on

the contrary, required to be managed, and in those days (as too often now), was very generally mismanaged. I presume it is now-a-days everywhere conceded that horse manure is the more valuable of the two; but neither should be used alone when we have the opportunity to mix them.

It may yet turn out that a *celery* pit will be to the truckers what the *silo* is to the farmer, and, for all I know to the contrary, it may be that the one I have just finished is the first ever built specially for the purpose. It is 50 feet long, 9 feet wide, and by digging and banking is 6 feet high to the rafters, with a span roof of boards battened. The pit is boarded all around, has a window at one end, and a door at the other, to give a circulation of air in mild weather; besides, it is provided with two ventilators on top. It is a home-made concern but I have no doubt of its working well, and hope to record its doings next winter if I can only manage to raise a good crop of *celery*, which has been very precarious of late years.

If *gas tar* is good to keep off or kill potato beetles, why may it not save our cabbages from the worm if used before heading? I shall make some timely experiments with it.

April comes, and with it every incentive to renewed exertion. Not a year passes but we are disappointed more or less in our oversanguine hopes, but when spring returns we gladly forget the past and are as eager and confident as ever. Nothing like trying for full crops. Manure well, thin well, cultivate well. If flat culture (versus hills and ridges) is all that is claimed for it, it must be especially worthy of attention in these years of drought. This will be much on my mind the coming summer.

Plants in frames will now need plenty of airing and watering. All hardy seeds and plants should be committed to the ground in the course of the month. Succession crops of peas must be sown, especially if only one variety is relied on, but a good plan is to sow two or three varieties at once that will come in in succession.

Now is a good time to make the strawberry bed. At this season every good plant will grow.

The meanest garden should have at least three sashes set on a cold frame. During winter one should give a supply of parsley, the second plenty of violets, and the third should be full of young monthly roses, ready to be set out this month. Those who wish to try this next winter can do something towards it now. Procure some violet runners and set them out for the summer in good, rich ground. Sow a half ounce of parsley at the same time, and set out half a dozen of the best monthly roses. In September set the frame on a well enriched piece of ground, transplant the violets and parsley, cutting back the latter. At the same time put in plenty of rose slips in sand in partial shade, and when well rooted move to the frame. Protect from severe frost by mats, and earth up well outside the frames.

In gardening, even on a small scale, never be without a good marker; a line that will bear a good strain without breaking; one or more dibbers, smooth and handsome—and these are the only pistols gardeners should ever use; rakes, notched on the handle into feet and half feet, and where the garden is large, a good seed drill.

Towards the end of the month preparations must go on for tender plants and seeds to be set out by-and-by. Meantime, the hoe must be kept going to disturb the weeds before they get a chance to start. Adams' early corn may be planted, and a few early tomatoes may be set out, provided there are plenty more in reserve. JOHN WATSON.

EVERY lover of plants should have Mr. John Sanl's Catalogue of Plants. It abounds with attractions, and his colored plate for 1882 pictures some of the newest roses.

Asparagus Beds.

Much depends upon the size of the bed which it is desired to make. If only a small one for family use, then it could be trenched with a spade. In the selection of a site, a good, warm, sunny soil is best, especially one which has been planted and well cultivated for two years, so that the sod had become well rotted. If a large bed is determined upon, then obtain a good-sized plow and a couple of yoke of oxen or two pair of horses, as the ground needs to be plowed sixteen or eighteen inches deep; and in order to do this you will have to go up the furrow twice, and if your plow is small you will have to go through every furrow; but with a heavy plow and powerful team, after starting, you will be able to plow the proper depth, provided you do not attempt to take too wide a furrow. Do not attempt to put in your plants if your plowing has given any less depth than sixteen inches. Formerly this work was done with the spade, but trenching is too expensive in these days. If your land is in good tilth after this plowing, apply at the rate of eight cords of manure to the acre. This you can plow in with a one-horse plow, then harrow and level off the ground. Next mark off the rows three and a-half to four feet apart and open furrows by going forward and backward in the same furrow. With a shovel clean out the bottom of the furrow the width of the spade, and it should be at least eight inches below the level surface. The bed is now ready for setting out the plants, which latter should be a year old. You can step into such a furrow as described above and place the plants from twelve to fifteen inches apart, with crown upward and roots well spread out in the furrow, covering them ten inches deep with the soil from the side of the furrow, spread on with your hands. The roots will soon sprout, and the plants, which will soon be up, must be hoed and have a little more dirt drawn down upon them. This operation must be repeated as often as the weeds start. When you have all the ridges worked down into the trenches then you can use the elevator the balance of the season. It is desirable that the cultivator be frequently used, and as long as the tops will permit a horse to pass through them without damage. About the 1st of November, or before the tops go to seed, they should be mowed down and burned. Then with a one-horse plow run up between the rows and leave the bed for winter. In the spring go over the bed with a disk harrow and apply a coat of manure. Then run over it again with the disk harrow, followed by a common harrow. This work should be done before the plants start in the spring, and after they have started go over the bed with a harrow. After getting the bed properly started keep down the weeds and be sure to cut the tops before they go to seed. You will find it necessary to manure your bed every spring if you desire a continuation of good crops. With good culture a bed may be made to yield heavy crops for a great many years.—*American Cultivator.*

SOWING ONION SEED.—W. G. Comstock, writing from Wethersfield, Conn., to *The Garden*, says: The land being prepared, stretch a line on one side of the plot and, parallel with it, mark off in drills fourteen or fifteen inches apart by drawing a marking rake with four or five teeth, back and forth till finished. The best onion growers now do not roll in the seed. A heavy rain packs the earth after it and it is much harder to break the crust at the first weeding than when covered with a light drag. Six pounds is about the proper quantity for medium sized onions, for large onions five pounds are enough. If the ground is infested with maggots allow one pound more. The last week in April or the first week in May is the right time to sow in Wethersfield, but it is

always best to sow as early as the ground is dry enough to put in good order. In favorable weather the seed comes up in about ten days.

PRESS DOWN THE EARTH.—If garden seeds, when planted in the spring, are firmly pressed when under the earth, by the ball of the foot, at the time the gardeners are putting them into the ground, they will invariably grow, drouth or no drouth; and what is still more important, they will spring up earlier and grow faster, and mature better than any of their kind which have not been subjected to this discipline. This same rule of pressure holds good in regard to transplanting trees, shrubs and plants.

P. HENDERSON.

The Grange.**National Lecturer's Communication.****SUBJECTS FOR APRIL.**

Question—Is organization and co-operation a necessity among farmers?

Suggestions—By isolation farmers live single-handed and are at the mercy of corporate power, and are compelled to submit to the assumed authority unjustly exercised by corporations. Other classes and interests have organizations for the purpose of co-operation, and by the application of its power have gained many advantages, and the farmers made to bear burdens of injustice that a just Government should seek to remove. But by co-operative efforts employed by corporations through political instrumentalities to control legislation and Government, such removals are prevented and the burdens of farmers annually increased. By united and consolidated efforts of the farmers only can they protect their own interests and secure justice to themselves. Such consolidation can not be made, nor the efforts employed, without thorough organization. Hence, organization of the farmers is an absolute necessity, and strict co-operation must be employed in all Grange work. By thorough organization and co-operation the farmers can accomplish desired results.

Question—Systematize farm work, with a view of obtaining desirable results?

Suggestions—Decide what you can best produce, considering land, tools, teams, help and surroundings. Arrange place of operation, adopt some practical system, and then follow it as closely as circumstances and seasons will admit. Thought and system properly employed can be made a profitable substitute for much of the hard labor on the farm. Diversified crops, mixed husbandry, may be made profitable. Exchange thought and experience upon these questions, so as to profit by the educational advantages in the Grange. Demonstrate by public and private acts the necessity and usefulness of Grange organization, and our influence will be exerted for good in the community in which we live and with those with whom we are associated.

Baltimore County Grange.

The regular quarterly meeting was held on the 28th of March at hall of Garrison Forest Grange, Pikesville, with a fair attendance of delegates and visitors. The reports from subordinate granges showed the general condition of the Order to be encouraging in the county. Addresses were delivered by William B. Sands, Lecturer of the County Grange, and James Pentland, Master of Homeland Grange. The question as to the most profitable crop for farmers in the vicinity of Baltimore to raise was discussed; amongst those taking part were Thomas B. Todd, Joshua Parsons, Arthur Chenowith, Andrew J. Rogers, Francis Sanderson. A variety of sentiment was expressed, but all concluded that large crops to the acre are the only profitable ones. The Master, C.

Lyon Rogers, gave, by request, an interesting account of his experience with ensilage. He said the preserved fodder cost him from \$3.50 to \$4.00 per ton, counting the land at \$200 per acre and computing the interest at six per cent. His pit, or silo, is in a hill side, 6½ feet deep, and banked up so as to be 9 feet deep, and 34 long by 12 wide. It is boarded up with planks at the sides, which are nailed to chestnut posts. One steam engine, 12 hands and three teams in four and a-half days put away the fodder from 9½ acres, some of which was 15 feet long. It averaged probably 8 to 12 tons to the acre, and much of it bore ears. The cut fodder was tramped down in the pit by three horses, two men keeping it distributed and level. He covered the fodder with chaff, then with dry fodder, six inches thick, then with boards and on these some railroad ties and stones. The stones averaged one foot thick, but were more than was necessary. All this was covered with sawdust, and above it was built a roof of corn fodder. The ensilage kept perfectly, the only signs of decay being some slight discoloration at the chestnut posts, which were green when they were used. His animals all eat the preserved fodder eagerly, and his dairy cows increased their yield upon it. Fed one bushel per day, and would have given more if he had it. Always used mill stuff, and some cotton seed meal with it.

A memorial was adopted calling upon the Legislature to withhold all appropriations from the Agricultural College, as not bringing any returns or doing any service to agriculture.

The Grange adjourned to meet in June at the hall of Centennial Grange.

GLENCOE GRANGE, No. 160, Baltimore Co., will hold a meeting on April 5th, when the State Lecturer, Dr. A. E. Sudler, of Queen Anne's, will be present and make an address.

Home Department.**"The Happy Medium."**

Human nature is prone to extremes, and perhaps the most difficult state to attain in life is the "Happy Medium," for like pendulums, we swing too far either to one side or the other, seldom pausing at the safe central point. Give us an inch, we take an ell, and reach graspingly after the yard.

In this day of high pressure living, few and far between are those fortunate persons who are content with moderation in all things; we have too many places to visit; too many books to read; too many engagements to fulfil; each year there is more restlessness going and coming; less faculty and desire for home life; more literary cramming; less wholesome digestion.

Our lives contrasting sharply with the staid and sober ways of our grandfathers, are becoming a scramble, a turmoil; time is all too short to perform the thousand and one things that society or inclination demands, and we live at a fever heat, that will eventually make all amusement a weariness, and teach us the misery of satiety. Certainly the extremist is not a pleasant person to live with; he has too many sharp and aggressive points; too many wildisms and theories; he never thoroughly enjoys the present, for he is forever reaching after all the future may bring; he is too intolerant of opposition, too eager to tear down the old, and replace it at all hazards with the new.

On the other hand the conservative cherishes his few precious ideas; his way is, he thinks, the right way, and is unalterable; he is quick to denounce all difference of thought or deed as wicked or useless, and he clings to every tradition of the past, and devoutly hopes the present may bring no change; he needs expansion, as much as his brother, the extremist, needs contraction, and both of them are far from the safe middle course.

The farmer who reluctantly arrives to a late breakfast; who regards all haste as vexatious, and all persistent hard work as useless; who never lets his business interfere with his pleasure, is hardly the man to raise the best crops, or exhibit the biggest potatoes at the county fair; and it is highly probable his life will be spent in an easy toleration of the debts and mortgages a too self-indulgent nature has saddled upon him, and he will sleep serenely, while his hopeless creditor walks the floor.

On the other hand his neighbor who with criminal lack of courtesy towards the sun, routs his family up before the first ray of that luminary appears, and cold, cross, and sleepy, awaits the daybreak, when it is possible to begin work; who drudges without recreation, and stints and saves without judgment; who dooms his unfortunate children to seek comfort and amusement in any home but their own, is as greatly in need of the "happy medium" as his luckless behind-hand brother. I know a woman who has splendid clothes and jewels, and a house so fine there seems to be nothing that could be added to its perfection, yet she spends hours idly dreaming on her window pane, longing for something new to buy—some ungratified wish to arise, and save her from the ennui of an useless and vapid existence. I knew another woman who never rests a moment. She is always baking and sweeping and sewing and dusting, or rushing to clubs, to societies, to lectures, and when you meet her you feel such a weariness of flesh and spirit, for she always says in a breath, "I was up real early this morning, and I swept three rooms before breakfast, made sixteen pies by ten o'clock, turned a dress, and wrote ten letters before dinner, and this afternoon I went to Dr. Guggle's lecture, did a lot of shopping, stopped in at the daily prayer meeting, and have 2500 tracts to address and send off to the heathens to-night." We gasp—Is that all? and she hurries off as if propelled by an inward gale—ribbons and wrappings fluttering in the air. My first example is dissipated in idleness, my latter in over work, and neither has attained the "happy medium" that would have sent the one to lend a helping hand to the countless needs around her in a large city, or to have given the other a repose that would have mitigated her trying and ceaseless activity. The girl who wouldn't go to a party because her escort hadn't on a swallow-tail coat, was a stickler for the conventionalities of society, and perhaps as far from the right path as that other girl, who was so indifferent to the eternal fitness of things she sucked a large orange at the opera, and gloried in the fact that the glasses were turned from the stage to witness her gratuitous performance.

"Dissipation" is a word that covers a multitude of sins, and there are many little self-indulgences that in the end ruin our lives as surely as if we were beset by some swifter terrible temptation; like the barnacle that fastens on the huge ship, a mere point on her great surface, yet, just as certainly dooming her to destruction as the rock against which she dashes and sinks, so these little sins of commission and omission keep us from the rounded and perfect life we should seek to attain.

But how shall we escape the Charybdis of unbridled speech and act, on the one hand, the Scylla of saying nothing worth hearing, doing nothing worth recording on the other? How shall we limit our desires to our means, our amusements to a proper proportion with the real earnest work of life? How shall we manage to read, to work, to visit, without letting our moral pendulum swing to the side of excess either way? How shall we in fact attain the safe and "happy medium" that shall save us from disaster in all things. From the quaint page of Fenelon I copy a few thoughts that may help us. He says: "Avoid temptations and excesses in all things."

and drown your too lively imagination and taste for the world. You must retrench all long conversations, and even in small ones you should not indulge in a certain activity of spirit, which is incompatible with recollection."

But perhaps the mother of the poet Goethe, has more nearly defined the safety of adapting one's self to limits, and the blessedness of the repose, the security, and true enjoyment to be found *only* in moderation. In a letter to her adopted son she says: "I cherish life while yet the taper glows; seek for no thorns; snatch the little joys; stoop if the doors are low; if I can push the stone out of the way, do so; if it is too heavy, go around it; and thus every day I find something that rejoices me, and the keystone of all, belief in God." *E. W. B.*

Look to Your Whitewashing.

As we have often recommended, good whitewash, well-applied to fences, sheds, rough siding, and the walls and ceilings of buildings, cellars, etc., has a highly sanitary influence, as well as being very preservative in its effects. To be durable, whitewash should be prepared in the following manner: Take the very best stone lime, and slake it in a close tub, covered with a cloth to preserve the steam. Salt—as much as can be dissolved in the water used for slaking and reducing the lime—should be applied, and the whole mass carefully strained and thickened with a small quantity of sand, the purer and finer the better. A few pounds of wheat flour mixed as paste may be added, and will give greater durability to the mass, especially when applied to the exterior surface of buildings. With pure lime, properly slaked and mixed with twice its weight of fine sand and sifted wood ashes, in equal proportions, almost any color may be made by the addition of pigments. Granite, slate, freestone and other shades may be imitated, and without any detriment to the durability of the wash. This covering is very often applied and with good effect, to underpinning, stone fences, roofs and the walls of barns and other out-buildings. Probably the pure whitewash is more healthy than the colored, as its alkaline properties are superior, and when used in cellars, kitchens and sleeping apartments, produces salutary results.

No person who regards the health of his family should neglect to apply a coat of such whitewash every spring. Country-places, especially farm out-houses, fences, etc., are greatly improved in appearance by an annual coat, and it will add to their permanency much more than many would imagine. As we all know, it is cheap and easily applied, so that neither expense nor labor can be pleaded against it.—*Ger. Telegraph.*

RATS.—A writer in the *Scientific American* says: We clean our premises of the detestable vermin, rats, by making whitewash yellow with copperas and covering the stone and rafters with it. In every crevice in which a rat may go we put the crystals of the copperas and scatter in the corner of the floor. The result was a perfect stampede of rats and mice. Since that time not a foot-fall of either rats or mice has been heard around the house. Every spring a coat of yellow wash is given the cellar as a purifier, as a rat exterminator, and no typhoid, dysentery or fever attacks the family. Many persons deliberately attract all the rats in the neighborhood by leaving the fruits and vegetables uncovered in the cellar, and sometimes even the soap is left open for their regalement. Cover up everything eatable in the cellar and in the pantry and you will soon starve them out. These precautions, joined to the services of a good cat, will prove as good a rat exterminator as the chemist can provide. We never allow rats to be poisoned in our dwelling. They are so apt to die between the walls and produce annoyance.

A One and a-half Story Cottage.

Our design, as here illustrated in an economical little side entrance cottage of seven rooms, measuring twenty-seven feet six inches, by fifty-four feet at the extreme width. The first floor has a parlor, family sitting-room, dining-room and kitchen. The rooms have been clustered so that all those used in connection with one another, are closely grouped. The house is entered from the front by the small porch seen in the corner between the gables; this with the sheltered location protects the entrance from all storms very effectually.

On entering the hall from the front door, the stairs leading to the upper floor are on the left side of the hall, and the parlor door just in front of their landing. A nice little balcony in front of the house entered from the parlor windows, affords a pleasant place to sit during pleasant weather. In the hall, directly opposite the front door, is a door leading to the side yard, thus affording a private exit to the same from the parlor, dining-room and family-room, without the annoyance of coming in contact with the kitchen or the rear part of the house. The dining-room and sitting room are entered from the hall, and have a door connecting them. Each has an entrance to the rear hall. Between the kitchen and dining-room is a commodious pantry, with shelves and closets. The door at each end of this pantry completely excludes all smoke and steam from the kitchen entering the dining-room. The rear hall serves as a sort of lobby, being entered from the dining-room, family-room and kitchen, and having a door leading to the yard from the rear porch. The dining-room and family-room are well ventilated, having windows on both sides, and being connected by a door directly opposite one of the windows in each room. The kitchen also has a direct draught, the side windows being opposite.

One virtue which this design possesses, and which is very often found lacking in most country houses, is that while there has been ample provision made for ventilation, and exits enough provided for convenience, there is no superfluity, no door or window which has not its distinct purpose or cause, and thus no unnecessary openings for the admission of cold air in the winter have been introduced into the composition of this design. Ascending the stairs, we land in close proximity to the three doors, leading to their respective chambers. The kitchen is only one story, the remainder of the house one and a-half stories in height, and the story and a-half part is so arranged as not to cut the corners of the rooms any more than is absolutely necessary. Each of the rear chambers contains a closet. The upper hall has a window at each end, thus insuring a pleasant current of air in summer and a well-lighted stairway.

The elevation speaks for itself, and we do not consider it necessary to say anything for the outer appearance of the house further than that all the ornaments are solidly constructed, and not liable to decay. The masses are well distributed, and light and shadow



have had the required study spent upon their disposition. Any further information will be furnished by J. B. Leas, Architect, St. Louis.

Bedroom Furnishings.

Many persons are apt to think that in furnishing their homes they must make the parlor the receptacle for everything nice, neglecting their bedrooms, and leaving them, as it were, bare of everything save just what is absolutely needed for comfort. In my opinion, a bedroom should always have about it an air of cleanliness; nay, everything in the room should have a dainty look.

It really does not need a very large outlay of money to accomplish this—in fact we can become our own furniture manufacturers. I have in my mind's eye now, a bedroom I saw some time since in the country, the furnishings of which were a mere nothing in the money point of view. I never saw anything sweeter or more inviting. First of all, the paint was white, the walls were of a delicate blue. Painted walls are much the best, as they can be washed with soap and water, and made to look as fresh, every fall and spring as if the painter had just paid them a visit. The painting may cost a little more than kalsomining in the first outlay, but those who try it will find it cheaper in the end.

Well, to return to my pattern bedroom. The carpet was of what is known as rag, but so ingeniously was it woven that no one person in a hundred could have told it. The colors were of blue and one of the many beautiful shades known as wood. The carpet did not cover more than the centre of the floor, leaving about three feet all around the room with only stained boards. This I consider a good idea, as dust always collects under furniture—draughts of air sweep it into the corners. The boards being without covering, allow of its being easily taken up with a duster. Then, too, the carpet being simply laid down, there was no difficulty in the way of its being often shaken—no tacks to be taken out, and no heavy furniture to move. The bedstead, which was of painted wood, blue, and a shade something the same

as the carpet. There was also a sweet little sewing table and a fancy stool, which I learned answered the purpose of both stool and wood or coal box. This was simply a small box with a hinged top. The top was wadded to form a cushion, and the whole was covered with cretonne, the shades of which were in keeping with the uniform colors of the room. The sewing table was made of two circular pieces of planed pine, and a round pole of the same wood. The circular pieces were nailed or screwed to each end of the pole, one end answering for the top, the other for the bottom. This had on it four casters, in order to move the table with care. It was then covered all over with some light-blue cambric, and tied in the centre of the pole, so as to form a table the shape of an hour-glass. After this a cover of plain or dotted Swiss was put on, and it was finished with a plaiting of narrow blue ribbon around the top, and with small bows. There was a chair looking the very embodiment of comfort, which, I was told, was made of a flour barrel. Take a nice sound barrel and saw off about four inches of it clear through, then attach casters to the lower of head end. About midway, or at the height you wish your seat, be in and saw through five of six staves, or as many as is necessary to compass the width desired, thus forming a crescent of the upper part, and six or eight inches higher up, saw through about four staves on each side, and you have the arms, and the remaining long staves afford the back. Now, to make the seat, begin at a point a little below the first sawed place, and perforate the barrel around its whole circumference with gimlet or auger holes, then with stout twine or cord, interlaced like a bed cord, but more closely, weave your seat from side to side, in alternate holes, until the whole is compact and strong. In trimming use heavy unbleached domestic or ordinary ticking to cover the whole, and over this a covering of cretonne, to harmonize with the carpet. A cushion of some soft stuff may be used, and the space left for the arms and the back should be padded, both being enveloped with the same covering as the other parts.

The dressing table, which was a little jewel, was made of a dry goods box set on end, being about three and a-half feet high. This was covered neatly with cambric, the same shade as that on the sewing table. Over this was put a dotted Swiss cover, and around the upper edges was a plaiting or quilling of narrow blue ribbon. The mirror was suspended from a nail in the wall at a proper height above the top of the table. To the same nail was fastened three yards of the same Swiss with which the table was carried. It was finished at the ends with some cheap, pretty lace, about an eighth of an inch wide, and was caught in the centre with a piece of blue ribbon of the width known as No. 12. The same ribbon, tied in a full bow, held it fast to the nail. The ends depended from each side of the nail down to the outer corners of the table, to which they were attached with ribbon bows and were stretched back to the junction of the wall and table, thus forming a background and half canopy. Upon the table was placed a pretty toilet set in light blue glass, a set of toilet mats worked with one of the wood shades upon pale blue Java canvas, and that all-important article, a pin-cushion, which had a cover to match the mats.

The windows were ornamented with simple Swiss curtains, caught back with blue bows. Now, just such a pretty bedroom can one and all our readers have with little expense and some taste.—*Cor. Prairie Far.*

COLD IN THE HEAD.—Dissolve a teaspoonful of borax in a pint of hot water; let it stand until it becomes tepid; snuff some up the nostrils two or three times during the day, or use the dry powdered borax like snuff.

The American Farmer

"O FORTUNATOS NIMIUM SUA SI BONA MORINT
"AGRICOLAS." Virg.

PUBLISHED ON THE 1ST AND 15TH OF
EVERY MONTH,
By SAMUEL SANDS AND SON,
At No. 128 West Baltimore Street,
(Sign of the Golden Plow.)
BALTIMORE, MD.

WILLIAM B. SANDS, Proprietor.
SAMUEL SANDS, } Editors and Publishers.
WM. B. SANDS, }
DR. THOMAS POLLARD, Associate Editor.
Richmond, Va., Office, 619 W. Main St.

SUBSCRIPTION:
\$1.50 a year, in advance. Clubs of five or more
will be supplied at \$1 each.

ADVERTISING RATES:

	1 Time.	1 Mo.	2 Mo.	3 Mo.	6 Mo.	12 Mo.
1 Inch 12 lines	\$1.25	\$3.25	\$4.00	\$5.50	\$9.00	\$15.00

Liberal reductions will be made on larger advertisements. Advertisements to remain on outside page subject to special contract. Transient Advertisements payable in advance—all others quarterly. Advertisements should reach us by the 15th and 27th of the month, to secure insertion in the succeeding issue.

At the office of THE AMERICAN FARMER are located the offices of the following organizations, of each of which its proprietor, Wm. B. Sands, is secretary:

Maryland Horticultural Society.
Maryland Dairymen's Association.
Maryland State Grange, P. of H.
Agricultural Society of Baltimore Co.
Also, of the Maryland Poultry Club,
Thos. W. Hooper, Secretary.

BALTIMORE, APRIL 1, 1893.

OUR FRIENDS who have made up lists of subscribers may add to them at any time at club rate. The present month will afford many opportunities, doubtless, to most of them to enlarge their lists, and we hope that they will kindly bear it in mind.

Our Prize Essays.

In class four, "On growing fruits as farm crops in Maryland, with methods of cultivation and lists of approved sorts," the judges, Robert S. Emory, Esq., of Kent county, Maryland; G. F. B. Leighton, Esq., of Norfolk, Virginia, and General Luther Giddings, of Anne Arundel county, Maryland, awarded the prize to the Essay signed "Roxy," and upon opening the envelope bearing that name we find it belongs to Mr. Frank Sanderson, of Baltimore county, Md.

In the two remaining classes the committees have not yet completed their tasks, but doubtless in time for our next issue the entire list will have been acted upon, and one or the other of those awarded a prize will be published.

Agriculture in the Legislature.

As we go to press the session is within one day of its close, and some uncertainty exists as to the final disposition given some pending matters. The following bills, however, seem to have passed both houses, and most of them have already received the Governor's signature:

Striking out the compulsory feature in the tobacco inspection laws.

Fixing 325 pounds as the standard weight of a barrel of corn.

For the inspection of milk and to prevent swill being fed to cows.

Amending the law for the suppression of pleuro-pneumonia in cattle.

The Agricultural College.

The Legislature refused to renew the appropriations to this institution. In the House the Ways and Means Committee, after voting against including any appropriation, reconsidered its action and inserted the former

sum appropriated, to allow the contest to be made in the House. When the bills were up the appropriation was antagonized by Messrs. Turner, of Alleghany; Banks, of Baltimore county, and Johnson, of Dorchester, and was struck out. Afterwards, an effort was made in the Senate to amend by reinserting the appropriation of \$6,000, but it failed, receiving but seven votes. Mr. Warfield, of Howard, in a set speech claimed that the State was pledged to this appropriation, and that it was in the nature of a contract, but Mr. Williams, of Baltimore county, exploded this theory and showed that the charter in the clearest and most unmistakable language reserved the right to the State to reduce or withdraw its support at any time. By a subsequent amendment, the words "and no more" were added to the nominal appropriation of \$5. The College still receives \$7,000 a year, the income from the United States land scrip donation.

Cyclops.

The advertisement of this fine horse is so conspicuous that it is hardly necessary for us to call attention to it, but we will add that the stallion is one of the most promising in the State, and that his reputation as a sure getter is firmly established. Last season he received fifty-six mares, nearly every one of which proved to be in foal. We are informed that Mr. William Bowly sold one of his colts when nine days old for \$125, and Mr. Robert Wilson, and others, have refused \$150 each for their sucking colts. As his service is to be limited, those who wish to breed their mares to Cyclops should send their applications at once.

More Jerseys for Baltimore County.

Mr. Samuel M. Shoemaker has purchased the following named Jerseys, at the prices attached, from Mr. John I. Holly, of Plainfield, N. J.: Queen of the Farm 1767, in calf to Uproar 4609, \$3,000; Madge Gray 4484, \$800; Miss Muffet 9907, \$800; Brisk Milker 12730, a daughter of Imp. Dandelion, \$750; Ambra 10169, \$500, and a heifer out of Phryne 4289, by Uproar 4609, dropped last December, for \$1,000.

SWEET POTATO CULTURE.—A neat little work in pamphlet form, published by the Orange Judd Company, New York, price 40 cents, containing 58 pages, brim full of information relating to the culture, storing, marketing, etc., of this excellent vegetable. This is really a valuable treatise, filling a want—an important one, too, for many sections—that heretofore has been overlooked. With this book in possession, there is not even the shadow of an excuse left for any farmer's table being unsupplied with this healthful and highly nutritious food, as the author simplifies every detail in such a manner as to make the growing of good sweet potatoes possible, even with such farmers as fail in growing grain. It is from the pen of James Fitz, Esq., Keswick, Va., a name with which the readers of THE AMERICAN FARMER are all familiar, as that of the author of many practical and edifying articles in our columns from time to time, which coupled with the fact of his residing in the "Old Dominion," where they know what good sweet potatoes are and how to grow them, is sufficient guarantee of the value and usefulness of the book.

WE call attention to the well-displayed advertisement of the Popplein Silicated Phosphate Company, who are near neighbors of THE AMERICAN FARMER. It will be noticed that they append in a very convenient form packages of their product in ten-pound boxes.

By the steamer Grecian, of the new Glasgow line, there arrived in Baltimore, March 21, eleven Clydesdale horses and twenty-seven black Scotch polled cattle, for W. G. McHenry, of Kansas.

AGRICULTURE IN THE SOUTH.

Its Needs and Opportunities.

By TH. POLLARD,

Ex-Commissioner of Agriculture of Virginia.

In our last we had something to say on fertilizers for grasses. One of the especial benefits of commercial fertilizers is that they enable the farmer to get a "stand" of clover and the grasses on land which otherwise would never produce them, and even though they may not add to the grain crop, if they cause this "stand" they will usually pay for all the expenditure and more. We omitted to say that lime is a very useful fertilizer in getting a stand of clover—either burned lime, or burned oyster shells, or gas lime, or marl; and recently it has been contended that ground lime stone is preferable to burned lime in agriculture. We think this is not yet properly tested. We have had very good effects from gas lime applied on oats and clover in the spring—the first year's growth of clover being as good as any to be seen anywhere. On a farm in Tide Water, Va., (mostly second growth in pines), we found our land, when marled as soon as cleared up, always took in clover, but if not marled it failed to take.

The curing of grasses is now well understood by many farmers, but not by many others, particularly our Southern farmers. Northern hay is almost always better cured than ours, while our climate gives us great facilities for hay curing in a short time, if we cut it at the proper stage, and avoid too much exposure to the hot suns. These are the two great secrets of success. We generally put off cutting too long, until woody fibre begins to form, and suffer it to wilt and dry up in our hot suns. Northern hay curers have found by experience in feeding that it is best to cut clover as soon as the heads here and there begin to turn brown, and not to follow the old rule of waiting to see one-half brown before mowing. Orchard grass, particularly, becomes hard and flinty, and is not relished by stock if permitted to stand uncut too long. If cut with clover, as soon as the brown heads begin to appear, the resulting hay will be of excellent quality, provided it is not cured too much in the sun. Some think, going too far in the other direction, that clover may be cut in the morning and be housed in the evening; and so some may, but really fine, succulent clover requires several days to cure. Last summer, on account of the drouth, I had clover cut and ready to house in a few hours; then again I have had it so luxuriant that it could not be housed until the fourth day, and then the precaution had been taken to shock it around stakes let in the ground and raised at the bottom on another stake supported by a short upright, as boys support a partridge trap by triggers. This is an excellent plan for heavy clover hay, because the shock can be raised high around a long stake giving it a small diameter, and air is admitted from the bottom as well as from the top and circumference. As soon as clover is well wilted it should be raked together and put in these shocks, and if the "tedder" is used, it may be shocked with much less exposure to the sun, and in shorter time, the drying being produced as much by the air as by the sun. Before housing, it should be spread out a few hours, the time being dependent on the weather and its previous advance in curing. No other hay requires as much care as that of clover, unless it be "partridge pea," which is rarely raised for hay, and corn fodder, if classed as a hay. This latter is the hardest of all long feed to cure, on account of a thick stalk, and the peculiar time of year it has to be cured in, with short cool days and long nights. The putting of salt on clover while being packed away we think has no preservative effect, and may possibly be deleterious by its desiccating effect, condensing the

moisture in the air. Lime is antiseptic if sprinkled over clover in the air-dried state, and while it tends to prevent fermentation and decomposition, it makes the hay less palatable to the animal and possibly injures if its use is long continued.

NECESSITY OF STOCK RAISING.

Intimately connected with the subject of grass production and hay making, is that of stock raising, which the South has too long neglected. Our farmers in many instances, perhaps a majority, do not raise pork enough to supply their farms, buy a large portion of their horses and mules, are content with a few scrubby cattle, with here and there exceptions, and support only 826,776 sheep, while England, Ireland and Scotland (United Kingdom), with an area not much larger than Virginia, had in 1885, 32,000,000—not supposed to have varied much since, (Encyclopedia Americana). England has one sheep for every one and one-fourth acres of land, and if Virginia had one for every ten acres we should have 2,800,000, as we have about 28,000,000 acres. This shows the capacity of Virginia for stock raising, and no doubt the comparison would extend itself to Maryland. Suppose we had one sheep for every ten acres and that the profit for each sheep was \$2.50 per annum (in mutton, lambs and wool), a very low estimate, the State would derive from this one animal alone \$5,000,000 annually, and this without taking into account the improvement of land by their droppings, their destruction of bushes and coarse herbage, and the gentle trappings of their tiny hoofs upon light, spongy lands. It has been often said that the "hoof of the sheep is golden," and the truth of it has passed into a proverb. English farmers, who know what they are about if any farmers in the world do, believe they cannot farm successfully without sheep—in fact, they know it.

The following testimony was taken before the Committee of the House of Lords, charged with the inquiry into the state of the wool trade, &c., in Great Britain in 1886. It is the testimony of some of the most eminent and respectable farmers of that country:

"Mr. William Pinkney, Salisbury Plain: Land such as I occupy could not be maintained without the aid of sheep. . . . The sheep are our principal dependence for supporting our crops; indeed, I could not occupy my farm without my flock."

"Mr. John Eilman, Jr., Sussex: I do not consider it possible for the light lands upon the Downs to be kept in cultivation without flocks. I could not keep the farm I now hold without sheep. . . . On the Southdowns the wool must be grown, let the price be what it will."

"Mr. Francis Hale, Arlingham, Suffolk: The description of land I occupy could not be kept in cultivation without the aid of sheep."

"Mr. John Wolledge, near Bury St. Edmunds, Suffolk: An estate near the above place contains 8,890 acres, let to tenants, and consists principally of poor sandy and gravelly land, the produce of which in grain is very precarious, amounting in dry seasons to little or nothing. The occupiers, therefore, depend almost entirely upon their flocks of sheep for the payment of their rents and the employment and support of the population. . . . I am of opinion that two-thirds of the counties of Suffolk and Norfolk may be comprehended in the sheep districts, and that they produce two pounds and a-half of wool and three-fourths of a lamb to the acre, upon an average. . . . The produce of the land depends materially upon the folding system; there is not sufficient straw for manure without the assistance of sheep."

"Mr. William Dott, Abbey Milton, Dorsetshire: I calculate the annual growth of wool in Dorsetshire at 10,000 packs of 240 pounds each. It is estimated . . . that 800,000 sheep, or one sheep and one-seventh per acre . . . are kept in this county. A considerable part of the county of Dorset is composed of high lands, and can only be kept in tillage by the aid of sheep."

"C. C. Western, Esq.: It is utterly impossible that the Down districts can be cultivated to advantage without sheep. We never fold our Merino or other sheep; the land is too wet."

"Lord Napier: If we had not sheep upon our lands (the highlands of Scotland) it

would become the habitation of foxes and snipes, and return to waste; it would produce nothing but grouse and wild game of different sorts."

It is not hard to see why sheep are better than horned cattle in the improvement of lands. The short and scant pasturage on which sheep will thrive will not do for cattle; on such lands large flocks cannot be profitably carried, or even small ones, unless the area is large. The English farmers are convinced that sheep give a better return for food consumed, and better repay in the expenditure necessary to bring poor land into a profitable condition for cultivation. In an able essay in the *Plough* (June 1846) the following remarks occur, which may be regarded as an expression of the prevailing opinion in England: "It is justly admitted that of all the domestic animals reared and fed for profit in Great Britain, sheep are of the greatest consequence both individually and in a national point of view, and afford a better return than can be obtained either from the rearing or feeding of cattle; the very fleece annually shorn from their backs is worthy of consideration. Sheep husbandry deserves to be considered in all its different branches, and claims the priority of consideration, among agriculturists." The expression here the "very fleece" shows that the English people rely upon the sale of mutton and the enriching of their lands for grain by means of sheep. By feeding from the land by aid of hurdles large crops of turnips, for the growth of which the climate of England is peculiarly suited (which is not the case with ours), the ground is well prepared for heavy crops of grain. Both in England and in this country it is found that poor and light soils are particularly suitable for sheep, because such lands will not carry cows successfully, while they will sheep, to their great improvement, particularly with the use of lime and green fallows. Thousands of acres in Virginia, now lying idle, and which are accessible to lime, might be made profitable for cultivation by rearing sheep on them, liming, and fallowing in pens and rye, to be followed with clover.

But we do not design now to go into the comparative value and profits of the different kinds of stock, but to urge on the farmer to raise more of horses, mules, cows, hogs and sheep to consume the additional grasses, and hay we advise to be raised to increase their meat supply, and to enrich their lands. While feeling the importance of increasing the number of our sheep, we do not underestimate the importance of raising more of all kinds of stock, particularly of cattle; and since it costs no more to feed a good animal than an indifferent one, it is very bad policy to feed the latter in place of the former. There are, we are glad to know, a number of flock raisers and farmers in different portions of our State and the Southern States generally who are introducing improved stock; some of it of the best quality. They deserve the praise and encouragement of all farmers and the people generally; not only of every dweller of the country, but of every inhabitant of the cities, who is much interested in the general prosperity of the country, and personally concerned to have on their daily tables good beef, good hams, and good mutton and lambs, in place of so much indifferent meat, the product of "scrub" animals. In raising good stock, the object may be obtained by introducing first good male progenitors. Of course, it may be obtained more rapidly by having the best of each sex, but the former is cheaper, more practicable and readily attainable. A male impresses its characteristics on a great number of its descendants, while the female only on that of its own offspring; besides, it is the opinion of many that the male is more potent in transmitting its qualities than the female. We have sometimes thought it would pay an association of the wealthy men of the cities to introduce into their

towns or suburbs, a collection of the best sires for horses and mules, the best bulls, the best rams, and to receive at a moderate fee females the farmer wishes to breed from, or probably to send these males out to designated localities for the use of a certain number farmers of who have wished their services. I believe the idea is original with me, but I think there is something in it. Even though it might not pay the actual money expenditure, it would more than pay in actual practical value all the cost of the investment. Let it be thought of. Of course this plan would only be applicable to sections contiguous to cities or not far removed.

Too Thankful for Words.

COAL RUN CROSSING, Ark., May 23, 1880.
H. H. WARNER & Co.: Sirs—I am too thankful to express in words the good your Safe Kidney and Liver has done my family.
* * *
REV. P. F. MARKLEE.

Baltimore Markets—April 1.

Flour.—The trade is moderate and the market is quiet and steady, with a sufficient offering of all grades. We quote as follows: Howard Street Super \$3.50@4.75; do. Extra \$5.00@6.00; do. Family \$3.25@4.25; Western Super \$3.50@4.75; do. Extra \$5.00@6.00; do. Family \$3.25@4.25; City Mills Super \$3.50@4.75; do. Extra \$5.00@6.00; do. (Rio Grande) Extra \$7.00@7.25; Rye Flour \$5.00@5.25; Corn Meal 7 100 lbs. 1.80.

Wheat.—The market to-day was fairly active and firm, closing at the outside figures and with small offering. Southern wheat is in good demand, with moderate offering. The sales were at 135@138 c. for firm to prime Fultz; 140@143c. for mixed, and 145c. for prime long berry. A large portion of the supply is on track. Closing prices: Cash 137@137½; April 137@138; May 138½@139; June 135½@135¾; July 130@130½; August 116; S. Fultz 130@135; S. long berry 145@148.

Corn.—The market was steady closing at the top figures and very firm. Southern corn is in fair demand, and the market is generally firm. Carcases of white sold at 8½@87c., and yellow sold at 81c. in small lots, and 79½c. for a cargo. Closing prices: Cash 79@79½; April 79; May 79½@80; June 79½@80; S. White 86@87; S. Yellow 79½.

Oats.—The offering is very light, and the market is higher and nominal for want of stock. The sales are two small lots, Maryland at 59@62c., the latter for extra light weight. Western mixed 55@57; bright 57@58; white 58@59; Pennsylvania 55@57; Southern 56@60.

Rye.—The arrivals continue to come in slowly, and the market is quiet and nominally steady. A lot of 300 bushels fair Maryland sold at 95c.

Cotton.—Market very quiet to-day; closed dull. Middlings 11½; strict low middling 11½; low middlings 11½; strict good ordinary 11; good ordinary 10½; ordinary 9½.

Tobacco.—Market very quiet but firm, under good inquiry for the better description. Maryland inferior and fringed \$3@3.50; do. sound common \$4@5; do. good common \$6; do. middling \$6.50@8; do. good and fine red \$3.50@4; do. fancy \$10@14; do. upper county \$4@16; do. ground leaf \$3@8; Ohio inferior to good common \$3@4; do. greenish and brown \$4@6; do. medium to fine red \$4@8; do. common spangled \$6@7; do. fine spangled and yellow \$8@15; do. air-cured, medium to fine \$6@12.

Live Stock.—Beef Cattle.—Offerings were of a superior order generally. Very best on sale 7@7½ c.; first quality 6½@6¾c.; Medium 4½@6½; Ordinary thin steers, oxen and cows 3@4c.; extreme range of prices 3@7½c.; most of the sales were from 6@7c. Hogs.—Trade is fair, but not active at 8½@9½c., with few sales under 9c.; most sales from 9½@9¾c. Sheep and Lambs.—The offerings of good sheep have been light this week, and they were sold out early. Prices ranged from 3@7c. for sheep, and 1½@2½c. at 10@12½c. per pound, and at \$3@5.50 per head.

Potatoes.—Foreign potatoes are still jobbing from wharf at 75@90c. per bushel as to quality. Domestic potatoes are in good request and prices are firm. Early Rose and Burbanks selling at \$1.25@1.35 per bushel from depot yards.

"Marked Benefit."

SAVANNAH, Ga., Feb. 21, 1881.
H. H. WARNER & Co.: Sirs—I have taken your Safe Kidney and Liver Cure for kidney and liver diseases with marked benefit.
* * *
J. B. JOYCE.

An Unusual Furor.

A RECENT EXCITEMENT INVESTIGATED BY THE HERALD AND THE RESULTS MADE PUBLIC.

(Cleveland, O., Herald.)

A few weeks ago we copied into our columns from the Rochester, N. Y. *Democrat and Chronicle* "A Remarkable Statement," made by J. B. Henion, M. D., a gentleman who is well known in this city. In that article Dr. Henion recounted a wonderful experience which befell him, and a few days thereafter we published from the same paper a second article, giving an account of the "Excitement in Rochester," caused by Dr. Henion's statement. In the first article Dr. Henion stated that for a number of years, up to last June, he had been afflicted with what seemed at first a most mysterious trouble. He felt unaccountably tired at frequent intervals; he had dull and indefinite pains in various parts of his body and head, and was very hungry one day and entirely without appetite the next. However, as a physician

he thought, and so did his fellow physicians, that he was suffering from malaria.

But yet he grew worse, and was finally obliged to give up a large and lucrative practice. Still he was not conscious of his danger, nor that a monstrous disease was becoming fixed upon him, although all his organs had become gradually weakened. The symptoms above described continued, accompanied by others of an aggravated nature, and he noticed a peculiar color and odor about the fluids he was passing; that they were abundant one day and very scanty the next, and were covered with froth, or filled with brick dust sediment. But even then he did not realize his real and alarming condition. At last, however, he was brought face to face with the fact that he was a victim of a most terrible disease, and he made heroic efforts for recovery. He traveled extensively, and consulted the best physicians, but they could give him only temporary relief, and that principally in the form of morphine. And so he grew steadily and constantly worse until his life became a torture. His pulse was uncontrollable. He lived wholly by injections, and for six days and nights he had the hiccoughs constantly, which are considered the sure indications of coming death.

When hope and life were nearly exhausted his pastor, the Rev. Dr. Foote, rector of St. Paul's church, strongly urged him to try a means which the reverend gentleman had seen used with remarkable results. He objected at first, but finally consented, and was conscious of an improved condition the first week. His pains gradually disappeared; his stomach resumed digestion; his heart became regular; his headaches disappeared; he had no more chills and fever, or acidity of the stomach; he gained twenty-six pounds in three months, and is a well man to-day, being entirely cured of a most pronounced case of Bright's disease.

Although conscious of the consequences from his professional brethren, still as a duty to his fellow men, and according to a vow he made on what he thought was his dying bed, he published a card detailing his illness and remarkable cure. "Since my recovery," he says, "I have thoroughly re-investigated the subject of kidney difficulties and Bright's disease, and I believe MORE THAN ONE-HALF THE DEATHS WHICH OCCUR IN AMERICA ARE CAUSED BY BRIGHT'S DISEASE OF THE KIDNEYS. It has no distinctive symptoms of its own (indeed, it often develops without any pain whatever in the kidneys or their vicinity) but has the symptoms of nearly every other known complaint. Hundreds of people die daily whose burials are authorized by a physician's certificate of 'Heart Disease,' 'Apoplexy,' 'Paralysis,' 'Spinal complaint,' 'Rheumatism,' 'Pneumonia,' and other common complaints when in reality it was Bright's disease of the kidneys. Few physicians, and fewer people, realize the extent of this disease or its dangerous and insidious nature. It steals into the system like a thief, manifests its presence by the commonest symptoms, and fastens itself upon the life before the victim is aware. It is nearly as hereditary as consumption, quite as common and fully as fatal. Entire families, inheriting it from their ancestors, have died, and yet none of the number knew or realized the mysterious power which was removing them. Instead of common symptoms it often shows none whatever, but brings death suddenly, and as such is usually supposed to be heart disease."

The second article, entitled "Excitement in Rochester," was made up of interviews with Dr. Henion himself, who confirmed all said in his card, and also with Mr. H. H. Warner. The latter gentleman did not regard Dr. Henion's case as particularly exceptional, because he had known of very many such cures by the same means in all parts of the land. Kidney diseases, he said, are carrying off tens of thousands every year, while Bright's disease is increasing 250 per cent. a decade, and yet the people do not realize it or seek to check it until too late. He related how a New Orleans medical professor, lecturing on this disease, thinking to show his class what healthy fluids were, subjected some of his own to a chemical test, and although he had no suspicion of it before, discovered that he, too, had the dreaded disease, which proved fatal in less than a year. There was also an interview with the celebrated chemist of the New York State Board of Health, Dr. S. A. Lattimore, who said he had analyzed the remedy which cured Dr. Henion, and found that it was "entirely free from any poisonous or deleterious substances."

We have made these condensations in order that all the material facts may be set before our readers. Since the publication of these two articles, having been besieged with letters of inquiry, we sent a communication to Dr. Henion, and also one to H. H. Warner

& Co., asking if any additional proof could be given us as to the validity of the statements published. In answer thereto we have received the following letters, which add interest to the entire subject, and wholly verify every statement hitherto made:

ROCHESTER, N. Y., Feb. 3, 1882.

GENTLEMEN:—Your favor is received. The published statement, over my signature, to which you refer is true in every respect, and I owe my life and present health wholly to the power of Warner's Safe Kidney and Liver Cure. It is not surprising that people should question the statement I made, for my recovery was as great a marvel to myself as to my physicians and friends.

J. B. HENION, M. D.

ROCHESTER, N. Y., Jan. 31, 1882.

SIRS:—Acknowledging your favor duly received, we would say: The best proof we can give you that the statements made by Dr. Henion are entirely true, and would not have been published unless strictly so, is the following testimonial from the best citizens of Rochester, and a card published by Rev. Dr. Foote, which you are at liberty to use if you wish.

H. H. WARNER & Co.

To Whom it may Concern:

In the Rochester, N. Y., *Democrat and Chronicle* of December 31, 1881, there appeared a statement in the form of a card from Dr. J. B. Henion, of this city, recounting his remarkable recovery from Bright's disease of the kidneys, after several doctors of prominence had given him up, by the use of a preparation manufactured in this city and known as Warner's Safe Kidney and Liver Cure.

We are personally or by reputation acquainted with Dr. Henion, and we believe he would publish no statement not literally true. We are also personally or by reputation well acquainted with H. H. Warner & Co., proprietors of this remedy, whose commercial and personal standing in this community is of the highest order, and we believe that they would not publish any statements which were not literally and strictly true in every particular.

C. R. PARSONS, (Mayor, Rochester.)
WM. PURCELL, (Editor, *Union and Advertiser*.)

W. D. SHUART, (Surrogate, Monroe Co.)
EDWARD A. FROST, (Clerk, Monroe Co.)
E. B. FENNER, (District Attorney, Monroe County.)

DANIEL T. HUNT, (Postmaster, Rochester.)
J. M. DAVY, (Ex-Member Congress, Rochester.)

JOHN S. MORGAN, (Special County Judge, Monroe County.)

HIRAM SIBLEY, (Capitalist and Seedsman.)
W. C. ROWLEY, (County Judge, Monroe County.)

JOHN VAN VOORHIS, (Member of Congress.)

CHARLES E. FITCH, (Editor *Democrat and Chronicle*, and Regent of the University.)

To the Editor of the Living Church,

Chicago, Ill.:

Will you allow the following card, personal to myself, to appear in your widely circulated paper? There was published in the Rochester *Democrat and Chronicle* of the 31st of December last, a statement made by J. B. Henion, M. D., narrating how he had been cured of Bright's disease of the kidneys, almost in its last stages, by the use of Warner's Safe Kidney and Liver Cure. I was referred to in that statement, as having recommended and urged Dr. Henion to try the remedy, which he did, and was cured.

Now the republishing of his statement in many of the leading journals of the day has been the cause of an incessant flow of letters to me, making many inquiries, but chiefly whether the statement is true, or a mere advertising dodge, etc., etc.

I beg, therefore to anticipate any further inquiries, and save time and labor, and some postage, by saying that the statement of Dr. Henion is true, so far as it concerns myself, and I believe it to be true in all other respects. He is a parishioner of mine, and I visited him in his sickness. I urged him to take the medicine, and would do the same again to any one who was troubled with a disease of the kidneys and liver.

ISRAEL FOOTE, (D. D.,)

Rector of St. Paul's Church.
Rochester, N. Y., Jan. 28, 1882.

J. M. Laroque's Anti-Bilious Bitters.
A purely vegetable, faultless family medicine for all diseases of the Liver and Stomach, cures sick and nervous headache, regulates the bowels, aids digestion, and is a certain cure and preventive of chills and fevers. Price, 25 cts. a paper, or \$1 a bottle. W. E. Thornton, corner Baltimore and Harrison streets.

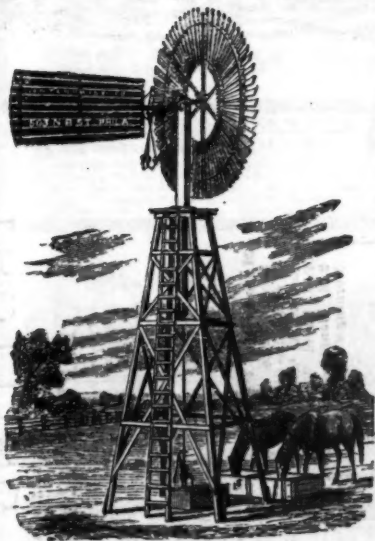
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Is a sure cure and remedy as follows:
SHEEP—Scab, Ticks, Lice, Fly and Maggots, Grub in the head, Worms in Sheep and Lambs. Improvement in quantity and quality of the wool more than pay for the Dip. HORSES—Mange, Lice, Thrush, Grease, Cracked Heels, Saddle and other Galls, Bots, Lung Disease. CATTLE—Mange, Lice, Texas Ticks, Foot and Mouth Disease, Pleuro-pneumonia; prevents Abortion. HOGS—Mange and Lice. DOGS—Mange and Fleas; makes the coat glossy. Internally for Worms in all animals; Ulcers and Wounds of all kinds. POULTRY—Fleas and Lice. Purifies the houses. HORTICULTURE—Aphis, Blight, Scale on Orange Trees, Bark Lice, Rust in Carrots.
It is superior to all other Dips and cheaper, for one gallon is enough for 100 gallons of cold water for use. To be used cold. Send stamp for U. S. testimonials and price list to T. W. LAW FORD, Gen'l Agent, 296 N. Chesapeake Street, Baltimore, Md. (Mention this paper.)

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BY Woodford Membrino, 2 31½; dam Lady McKenny, also the dam of Nil Desperandum, whose record is 2 24½. Will make the season in Talbot. For particulars apply to

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G. F. NEEDHAM, Washington, D. C.

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Is one of the very best of the new white Grapes. Hardy, productive, flavor the best. If you plant a vine this spring let it be a DUCHESS. \$1.00 each; \$10.00 per dozen; by mail. Address

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THE Popplein Silicated Phosphate.

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Moisture, at 212° F.	5 to 8 per cent.
Available Phos. Acid.	9 to 11 "
Insoluble "	1 to 3 "
Soluble Silica.	15 to 18 "
Potash K. O.	2½ to 4 "
Magnesia	2 to 3 "
Soda	2 to 3 "

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Address ROBT. J. HALLIDAY, Baltimore, Md.

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\$1000 REWARD

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For Dyspepsia, Nervousness, Bilious Attacks, Headache, Constipation, and all Diseases of the Liver and Stomach.

ARE DECIDEDLY THE MOST POTENT REMEDY THAT CAN BE USED.

It is not an intoxicating beverage, and certainly would never be used as a pleasant substitute for alcoholic stimulants, but it is truly a valuable Family Medicine, which has been used for many years by large numbers of our citizens with the most unfailing success in all the above complaints. Try it.

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THREE SIZES FOR HORSE POWER.

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Jr.'s dam by Geo. M. Patchen, dam of Stallion by Jack

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Yorkshire, 24 dam by son of Hill's Black Hawk.

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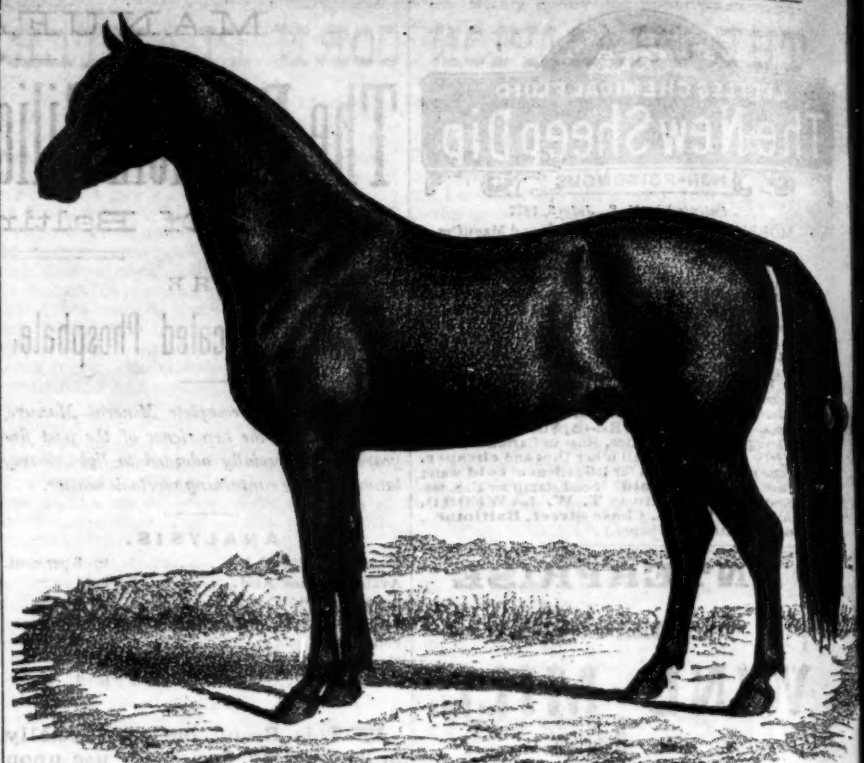
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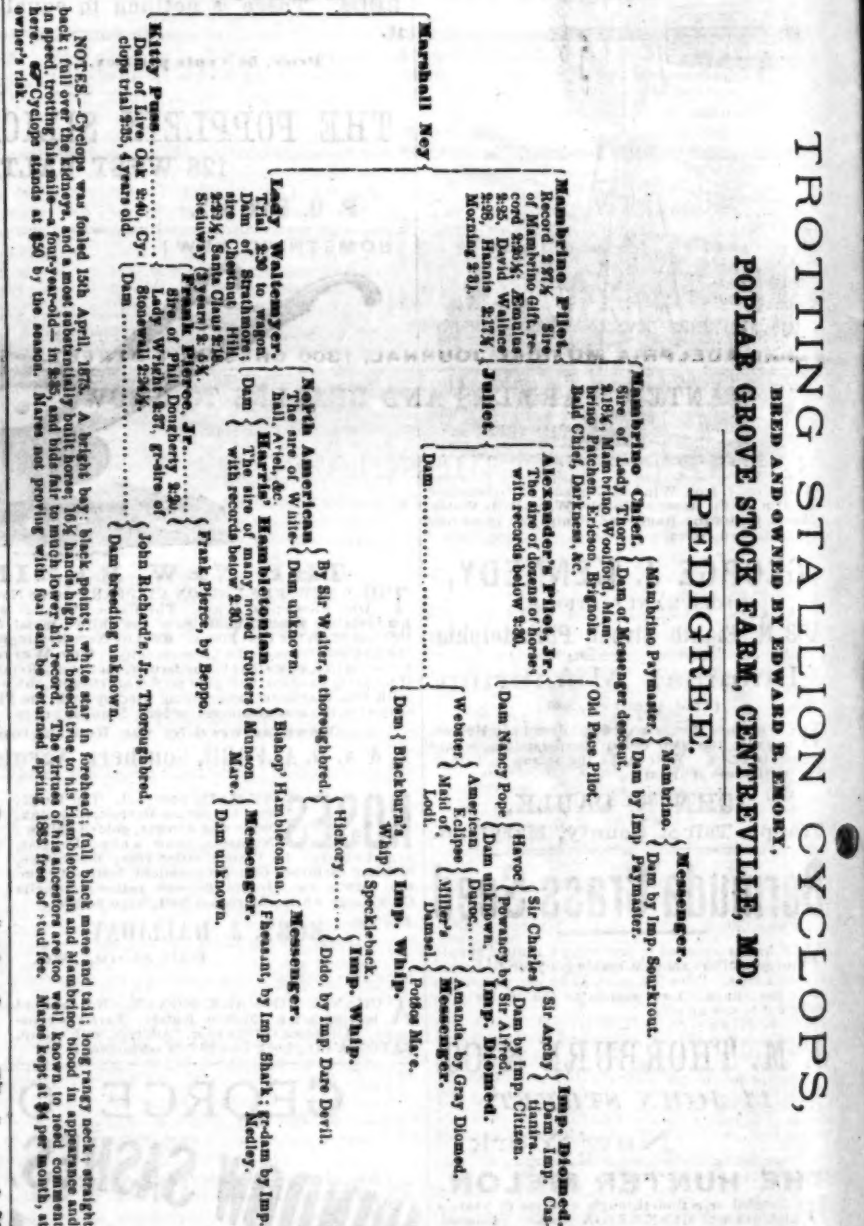
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We will send six of the above collection for \$5, thirteen for \$10, or the whole twenty-two collections for \$18. Having the largest place of the kind in the United States, we are in a position to offer the most reasonable terms. Descriptive Catalogue mailed free on application.

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ALL STOCK inspected by the Company's inspectors before policies are issued. For particulars send to the Company's office for circular, which gives all information as to plan, cost, etc. President, ROBT. S. CORSE, formerly of Clairmont Nurseries. Vice President, WM. B. SANDS, Editor AMERICAN FARMER. Treasurer, GEO. W. S. HOFFMAN, of W. H. Hoffman & Sons, Paper Manufacturers, Baltimore county. Secretary, ELI W. FREE.

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GOVANSTOWN, BALTIMORE COUNTY, MARYLAND.**

Ornamental and Fruit Trees, Flowering Shrubs, Herbaceous Plants.

WE invite the attention of the public to our select stock of the following: STANDARD AND DWARF PEARS—2, 3 and 4 years. APPLES—Standard and Dwarf. CHERRIES—Standard and Dwarf. APRICOTS, CRAB APPLES, MULBERRIES, GRAPEVINES, of the most popular kinds, together with other small fruits. Our Collections of ORNAMENTAL TREES AND SHRUBS are large, and embrace most of the rarest sorts. ROSES on their own roots, with the newest of BEDDING-OUT PLANTS by the dozen or 1,000, for which we have issued a separate Catalogue. SPECIAL—Sixty thousand one and two-year-old OSAGE ORANGE PLANTS, for hedges. CATALOGUES FORWARDED ON APPLICATION. ORDERS BY MAIL PROMPTLY ATTENDED TO. ALL GOODS DELIVERED IN BALTIMORE FREE OF CHARGE.

W. D. BRACKENRIDGE.

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DENTON, CAROLINE CO., MD.**

SPRING OF 1882.

MY NEW PRICE-LIST for coming spring is ready, and will be mailed free to all applicants giving post-office address plainly written (including name of county). My prices are "SUBSOILED," so far as a downward tendency goes, while I am happy to inform my former customers and all the readers of THE AMERICAN FARMER that the growth of my stock was never better than the present season. Peach and Apple trees are particularly fine, while the list of valuable varieties has been greatly increased. A complete assortment of all kinds of Fruit, Shade and Ornamental Trees, an immense stock of Grapevines, Asparagus Plants, Flowering Shrubs, &c., &c. Correspondence solicited.

J. W. KERR, Proprietor.

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SHINGLES, LATHS, PALES, Etc., AT LOWEST PRICES.

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FORMING the most concentrated, universal and durable FERTILIZER ever offered to the farmer—combining all the stimulating qualities of Peruvian Guano and the ever-durable fertilizing properties of Bones in fine, dry powder, prepared expressly for drilling, and can be applied in any quantity, however small, per acre. It is the opinion of many close-calculating farmers, after TWENTY-FOUR YEARS' experience in testing it side by side with other popular fertilizers, that an application of 100 pounds of "EXCELSIOR" is equal to 500 pounds of any other fertilizer or guano, and therefore fully 100 per cent. cheaper.

Uniformity of Quality Guaranteed by the Manufacturers.

Farmer can only be secure from inferior imitations by seeing that every bag is BRANDED WITH OUR NAME AND THE ANALYSIS IN RED LETTERS.

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Ground Raw Limestone as a Fertilizer.

The interest among intelligent farmers is increasing on the subject of

GROUND RAW LIMESTONE AS A FERTILIZER.

Wherever enough has been used, say 700 to 800 pounds per acre, the result has always been satisfactory. A Marylander writes us that he distributed twenty-five tons in October last on different farms, and up to this time it is equal in every case to the best Phosphates, and in some cases is superior to all other Fertilizers. An analysis of the celebrated Blue Grass region of Kentucky shows 2.464 parts carbonate of lime and 0.319 phosphoric acid. That is, there is eight times as much Ground Raw Limestone in the virgin soil of the Blue Grass region as there is of Phosphates or Bone Dust. Our formula for the best Fertilizer has always been 700 pounds of Ground Raw Limestone to 100 pounds of Bone Dust. No one in their senses questions that Phosphates do good to the land, and no one in their senses ought to deny, in view of the analysis of the Blue Grass soil, that Ground Raw Limestone should be the BASIS of Phosphates and Bone Dust. Grain contains 46.10 carbon; straw contains 48.48 carbon; and yet professional men tell us that plants get all their carbonic acid from the atmosphere. The facts are against them. Nature put eight times as much carbonate of lime in the Blue Grass region as phosphoric acid.

For further information, and cost of machinery for making the new Fertilizer, inquire of

TOTTEN & CO., PITTSBURG.

It can be made for 4½ cents per bushel, or less than \$1.50 per ton, and every farmer can prepare his own Fertilizer with ordinary horse power.

PRICES OF MACHINES.

1 horse power.	3 horse power.	5 horse power.
\$190.	\$390.	\$570.

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COMMISSION MERCHANTS,
195 LEXINGTON STREET,
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FARMERS' local orders for option trading solicited, and faithfully executed. Orders for SEEDS and FERTILIZERS promptly filled. CONSIGNMENTS SOLICITED. Reference, Howard Bank of Baltimore.



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170 and 172 NORTH FOURTH STREET, PHILADELPHIA,
DEALER IN ALL KINDS OF ASBESTOS MATERIALS.

GILPIN'S VEGETABLE LIVER PILLS

ARE prepared, with great care, from medical plants; are coated with sugar, that they may be taken by the smallest child and upon the most delicate stomach; are intended especially to act upon the Liver, thereby relieving all such diseases as COSTIVENESS, HEADACHE, PARALYSIS, DYSPPEPSIA, COLDS, JAUNDICE, and all diseases of a bilious origin. No better evidence can be offered in favor of these Pills than the very fact that where their ingredients are known to family physicians, they are using them in their private practice. We append the following from one of our most prominent physicians:

OAKLAND, June 28, 1899.—Dr. Gilpin: After carefully examining the formula of your Sugar-Coated Pills, I feel it but justice to say that the combination is certainly perfect, and comprises the only remedies I ever believed were the proper ones to be used in diseases of a bilious origin. I shall take pleasure in recommending them, not only to my patients but the entire medical profession. Yours truly, J. M. WISTAR, M.D.

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WESTON, W. VA., June 18, 1899.—Messrs. Canby, Gilpin & Co.—Gents: Please send by express twelve dozen Gilpin's Vegetable Liver Pills. I have the most flattering accounts from all who have used them, and believe the day is not far distant when they will supersede all others. Yours, F. M. CHALFANT.

We could fill several pages with certificates, etc., from prominent men throughout the country, but prefer to let the Pills in the future, as they have in the past, rest entirely on their own merit, knowing that wherever they are known their use will pass down from generation to generation.

GILPIN'S VEGETABLE LIVER PILLS are sold by all respectable druggists and country storekeepers throughout the United States and Canada.

Principal Depot, CANBY, GILPIN & CO., Baltimore.

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The Boilers the Safest and most Economical of Fuel made.

STATIONARY Steam Engines and Boilers, Patent Portable Circular Saw Mills, Sash, Muley and Gang Saw Mills, Flour Mill Machinery, Grist Mills, Shafting, Pulleys, &c., &c. AGRICULTURAL ENGINES A SPECIALTY. Lath, Shingle and Barrel Machinery, Luffel Turbine Water Wheels, Wood Working Machinery, all kinds; Tanite Emery Wheels and Grinders, Circular Saws, Saw Gummars, and Tools and Mill Supplies generally. Agents for NICOLS, SHEPARD & CO'S VIBRATOR THRESHING MACHINES. COMPLETE THRESHING OUTFITS FURNISHED. Send for Descriptive Catalogue and Reduced Price List.

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BEST QUALITY
GOODS
LOWEST PRICES
POWELL'S PREPARED CHEMICALS

For \$12 a Farmer can buy a FORMULA For (520 lbs) of POWELL'S PREPARED CHEMICALS

This, when mixed at home, makes One Ton of SUPERIOR PHOSPHATE, equal in plant-life and as certain of successful crop-production as many high priced Phosphates.

NO EXTRA EXPENSE. (No trouble to mix. Full directions.

Powell's Chemicals have been thoroughly tried, give universal satisfaction, and we offer leading farmers in every State as reference. Send for Pamphlet. Beware of imitations.

Brown Chemical Co

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Potash. Ammonia.

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Agents Wanted
BUTTER WORKER
Most Effective and Convenient
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Cap/city 10,000 lbs. per DAY
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Dr. Peck's Artificial Ear Drums

PERFECTLY RESTORE THE HEARING and perform the work of the Natural Drum. Always in position, but invisible to others. All conversation and even whispers heard distinctly. We refer to those using them. Send for descriptive circular with testimonials. Address, H. P. K. PECK & CO., 655 Broadway, New York.

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For Boats, Walls and Cellings in place of plaster. Samples and catalogue mailed free. W. H. FAY, Camden, N.J.

THE
HAMBLETONIAN
STALLION
PERALTO

Foaled 1877; Height, 16½ Hands;
Weight, 1,200 Pounds.

Sired by "Pierion," son of Rydyk's "Hambletonian," out of "Fashion" by "Hiatoga Chief," a son of Hamley's "Hiatoga." The dam of "Pierion" was "Fannie Clay" by Neave's "Cassius M. Clay."

PERALTO is believed to equal any five-year-old ever owned in Maryland for speed, breeding, size, appearance and form. As his sire showed a 2:30 gait at Prospect Park track, Brooklyn, N.Y., and his dam beat 2:30, it is thought he will prove a success as a stallion, particularly as he comes of demonstrated prepotent families.

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Twenty-five dollars the season, with privilege of return the following year in case of failure. Fifty cents to the groom for each mare. Mares from a distance kept on grain or pasture, as desired, at moderate rates, and owner's risk.

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Price, 25, 50 and \$1.00 per Bottle.

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400 Acres in Nursery Stock. 100 Acres in Orchards.
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Ammoniated

SUPER

BONE



Phosphate

Composed of the most concentrated materials, it is

RICH IN AMMONIA and SOLUBLE PHOSPHATES
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And keep constantly on hand a large supply of high-grade PERUVIAN GUANO.

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IN LOTS TO SUIT.

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Large Stock for Spring.

100,000 Apple Trees of all leading varieties. A large stock of Standard and Dwarf Pears,
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OXEN, with yoke and nearly new cart.

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STRAWBERRY PLANTS,

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RASPBERRY PLANTS.

Gregg, \$18 per M.; Cuthbert, \$11; Brandywine, \$9.

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REGISTERED CALVES, tracing to such bulls as
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the two first combining the blood of Albert, Splendid,
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From Largest Herd South, which took
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THIS hog is free from disease, a natural grazer,
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Also, COLLIE PUPS in April, from imported
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seven beautiful cards, in six colors
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NEW ORNAMENTAL TREES FRUIT & SHRUBS, ROSES, 1882.

Besides the largest and most complete general
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in the U.S., we offer many Choice Novelties.
New Abridged Catalogue mailed free to all who
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THIRTY-SIX Varieties of Cabbage; 26 of Corn,
1 of Cucurbit, 41 of Melon, 38 of Peas, 28 of
Beans, 17 of Squash, 23 of Beet and 40 of Tomato,
with other varieties in proportion; a large portion
of which were grown on my five seed Farms, will be
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for 1882," sent free to all who apply. Customers of
last season need not write for it. All Seed sold from
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true to name, so far, that should it prove otherwise, I
will refund the order gratis. The original introducer
of Early Ohio and Burbank Potatoes, Marblehead
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Vegetables. I invite the patronage of the public.
New Vegetables a specialty.

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BERKSHIRES FOR SALE At Reasonable Prices.

I BREED only from the most choice stock of the
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stock recorded, and can be seen at any time. Also,
Black-Breasted, Red-Breasted, and Blue GAMES
CHICKENS, or eggs of superior stock for sale. Stock
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It can be applied by any person, and the expense of
employing a painter is saved, whilst the cost of the
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statements. Address:—

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12 to 15 Per Cent. Available Phosphoric Acid.

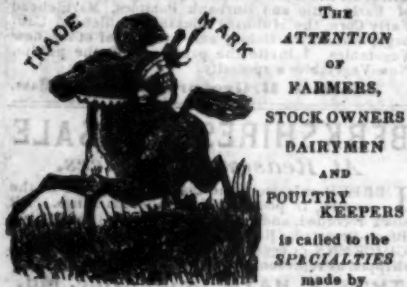
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1. The Indian Condition Powder.—Unlike many powders now on the market, which act on y as a stimulant, these powders, an entirely vegetable compound, possess the qualities of a tonic—invigorating and deepening the natural powers of animals, and being a mild purgative, keep the system in a healthy condition, enabling the animal to do more work and to resist the approach of disease. To dairymen these powders are invaluable, largely increasing the yield of milk, enriching the cream and adding greatly to its butter-yielding properties. When used on dairy farms it has everywhere given most complete satisfaction.

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3. The Ritaker Chicken Food.—For prevention and cure of all diseases incident to poultry yards. Poultry keepers find, after brief trial, a very large increase in the production of eggs, and marked improvement in the weight and appearance of fowls. As a promoter of growth in young fowls it has no equal, keeping them in health and free from vermin.

4. The Shepherd's Lotion.—A chemical preparation for prevention and cure of scab, rot, &c., in sheep and swine. This preparation needs only a trial to prove its worth.

One-pound box samples of the Condition Powders or Chicken Food, or a sample box of the Ointment, will be forwarded to any address, post paid, on receipt of 25 cts. in stamps or currency. Address for samples or circulars, **The Ritaker Manufacturing Co., 1708 Wiley Street, Philadelphia, Pa.**

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Eggs \$2.00 Per Setting.
SURPLUS BIRDS ALL SOLD.

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\$5 to \$20 per day at home. Samples worth \$5 free. Address **STINSON & CO., Portland, Maine.**

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Oriole Oakley Wood Fertilizer
For Red Lands.

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In order that the public may fully realize the genuineness of the statements, as well as the power and value of the article of which they speak, we publish herewith the fac simile signatures of parties whose sincerity is beyond question. The truth of these testimonials is absolute, nor can the facts they announce be ignored.

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GENTLEMEN—For twenty years I have suffered more or less from my bladder and kidneys. My business for many years has required me to travel all over the southern states. Whilst going to Texas last fall, I saw in a paper an advertisement of Warner's Safe Kidney and Liver Cure. I bought a bottle, and in less than a week the improvement in my health was palpable. Since then, my general health has improved wonderfully, and I now enjoy a degree of health and strength, in every particular, such as I had not hoped it possible to enjoy again in this world—of which I am satisfied, under God's blessing, has been due to your remedy.

Ino. C. Whitner

OFFICE OF ORDINARY, MUSCOOGEE CO.,
COLUMBUS, GA., Oct. 1, 1881.

H. H. Warner & Co., Rochester, N. Y.
GENTLEMEN—For eighteen months I suffered intensely with a disease of the kidneys and torpid liver, and after trying every remedy that I could hear of, besides being under the treatment of some of our chief physicians, I had almost given my case up as hopelessly incurable, when I was prevailed upon by my wife to try your Safe Kidney and Liver Cure. I confess I had but little faith in its merits or efficacy; but to my great satisfaction, after I had commenced on the second bottle, I continued the use of the medicine until I became completely cured.

P. W. Brooks

Judge Court of Ordinary.
Thousands of equally strong endorsements—many of them in cases where hope was abandoned—have been voluntarily given, showing the remarkable power of Warner's Safe Kidney and Liver Cure, in all diseases of the kidneys, liver and urinary organs. If any one who reads this has any physical trouble, remember the great danger of delay.

WANTED.

SECOND-HAND VOLUMES of the AMERICAN JERSEY CATTLE CLUB HERD REGISTER.

Address, giving number of volume and price,

S. T., Care AMERICAN FARMER OFFICE.

SAVED St. per b. also, can be SAVED in raising Corn and Rice, in W. set by using our HAWKOW. Our FULL VERIFIER contains 75 sharp, steel blades in three frames covering 10 feet. Warren ed the most powerful Pulverizer known. For illustrated Pamphlets address **WARREN & CO.,** 100 N. 3rd St., Philadelphia, Pa.

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SLINGLUFF'S DISSOLVED GROUND BONE,

Containing 5 per cent. of Ammonia.

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Containing 40 to 44 per cent. Soluble Bone Phosphate.

SLINGLUFF'S DISSOLVED SOUTH CAROLINA PHOSPHATE,

Containing 28 to 32 per cent. Soluble Bone Phosphate.

To meet the demand for a High-Grade Fertiliser, we are offering

SLINGLUFF'S NATIVE SUPER-PHOSPHATE,

Prepared entirely from Animal Bone, highly ammoniated. Also,

SLINGLUFF'S No. 1 AMMONIATED SUPER-PHOSPHATE.

This we can confidently recommend as one of the best fertilizers sold in the market at the price.

R. J. BAKER.

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SULPHATE OF AMMONIA.

R. J. BAKER & CO.

PURE NITRATE SODA.

MANUFACTURERS AND DEALERS IN

Pure Ground Bone, Chemicals, Acids, &c.,

For Manufacturing Super-Phosphates.

AMMONIATED SUPER-PHOSPHATE FOR ALL CROPS.

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